VISUAL HISTORY OF MANKIND

BOOK ONE

LIVING IN EARLY TIMES

PARRISH

ISOTYPE INSTITUTE

THE THEME OF THESE BOOKS

BOOK 1

LIVING IN EARLY TIMES

In the long, slow ages before written history began, men learned gradually to make use of their natural environment. They found out how to make, keep, and use fire; how to extract metals from their ores; how to shape tools. The hunters of animals domesticated some and lived in partnership with them. The gatherers of herbs and berries discovered agriculture. In river valleys, like that of the Nile, fields were cultivated and villages grew up. By the side of lakes, in houses built on piles, small groups of men lived more securely than their ancestors. Instead of furs, woven clothing began to be worn; in the huts crude rushlights and torches glowed at night; on the rivers the first boats were to be seen.

BOOK 2

LIVING IN VILLAGES AND TOWNS

These great fundamental discoveries made it possible for human beings to live in larger groups. Families gathered into villages and towns for mutual help and protection. This made possible division of labour with the consequent advantage of specialization. But it set problems of social organization which it has taken centuries to solve.

OK 3

NG IN THE WORLD

as towns and cities grew, they extended their influence and rule over the sur-
countryside. Later, the civilized regions came into contact with one another
mmerce and through war. Improving techniques speeded the process of
unication and led to the exploration of the whole planet, now seen to be
slowly and painfully, mankind is learning the lesson that secure and
comes not through the enslavement of human beings but from the
tation of natural resources.

VISUAL HISTORY OF MANKIND

LIVING IN EARLY TIMES

LIVING IN

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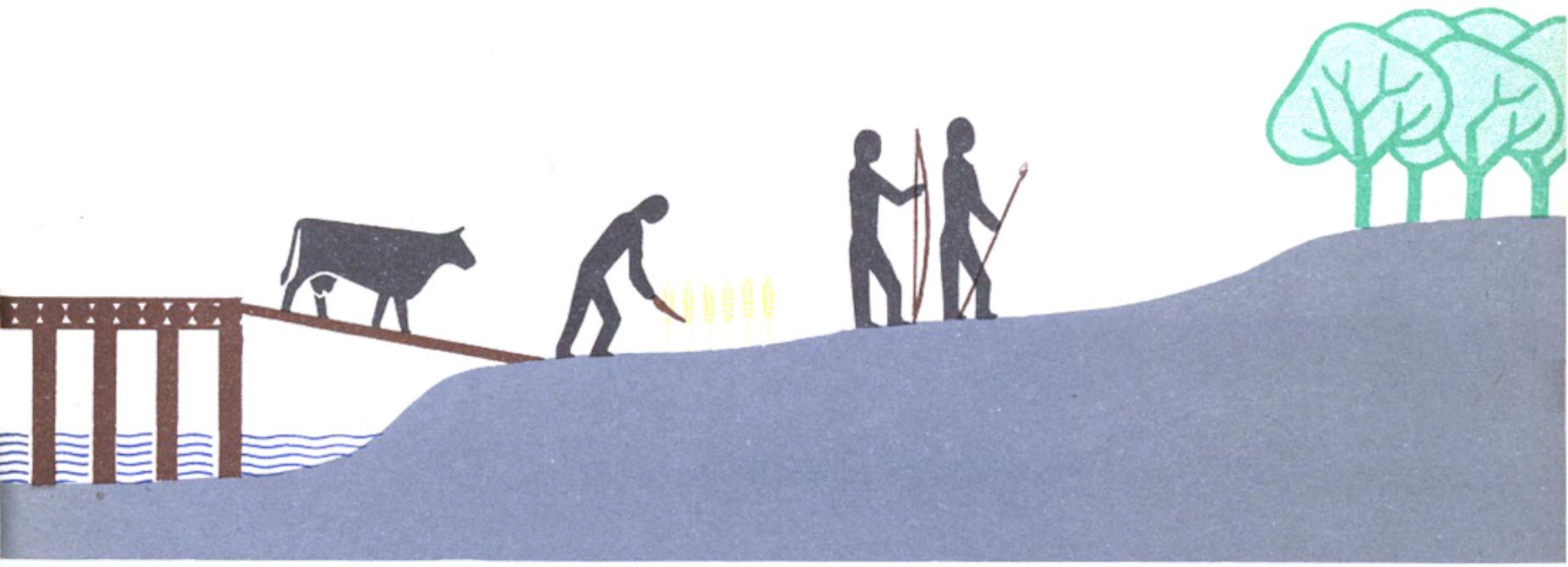
WITH 21 CHARTS IN EIGHT COLOURS BY THE ISOTYPE INSTITUTE



A MAX PARRISH BOOK

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LIST OF CONTENTS

How to Use this Book	Pages	6 & 7
The Ages of Man	Chart	1
Man comes on the Scene	Chart	2
Early Man and Animals	Chart	3
Dog and Man get together	Chart	4
How Cave Man hunted big animals	Chart	5
Man makes use of Animals	Chart	6
Tools and their uses	Chart	7
Getting Fire; Keeping Fire; Making Fire	Chart	8
Tools in Flint; Tools in Copper; Tools in Iron	Chart	9
How Man uses Fire	Chart	10
From Forest to Coke and Charcoal	Chart	11

Making Light	Chart	12
Making and using Boats	Chart	13
Three kinds of Bridge	Chart	14
Moving heavy stones	Chart	15
The Lake Dwellers	Chart	16
The Early Farmers	Chart	17
Making Clothes	Chart	18
Seasons on the Nile and in Britain	Chart	19
Living by the Nile in Early Times	Chart	20
Digging down into History	Chart	21
Things to do Yourself	Page	48
Some Books to Read	Page	49

HOW TO USE THIS BOOK

Inside this book you will find stories told in pictures. They have been drawn in a special way: you will notice that in them the same pictures, say for "man" or "tree" or "bear", come in again and again, just as letters or words do in an ordinary book.

These Isotype symbols, as the pictures are called, are always kept as simple and clear as possible, bearing in mind that each has to be recognized quickly and must be different from all the others. As a result they can be put together like the letters in a written line, to make up a story. Each chart in this book tells you several such stories and each of these is itself part of the great story of early man. By looking at them you will find out how our forefathers learned to make good use of the things they found around them. This is the greatest adventure story of all.

We like colour, but use it always with a purpose and never simply to get a pleasing effect. In our pictures, indeed, everything has meaning and nothing is put in only because we think it beautiful. We try to avoid anything which is not part of the story we want to tell, as well as any pictures which might not be understood in some parts of the world. We want our stories to be read just as easily and quickly in China or Africa as in Britain or America.

Isotype is a kind of picture-language intended for people of every kind throughout the world, young or old. But like all languages it needs a certain amount of thought to get the full meaning. It is not much good hoping you can, so to speak, catch the stories we tell in one quick look. You must expect to spend over every page at least as long as you would over a page of printed characters, and the more you look, the more you will come to see.

Begin by looking at each symbol, and then at all the symbols in each line or column till you thoroughly understand the statements made. Go on like that until you have read the whole page. Then ask yourself questions and try to answer them. As examples, we have drawn up lists of questions, many of which would, we feel sure, come into your mind as you look at the page. You can certainly think of more.

Then you will find big problems arising which will, we hope, send you to other books to find out more. We have made a list, on page 49, of books which we think you may find useful. It is a help, by the way, if two or more people look together at a chart: every one will think of different points or questions, and soon an argument or discussion springs up.

We have arranged our charts in an order which we think is a good one. But there is no reason why you should feel bound to follow it. After all, this book is in some ways rather like an atlas of history. Around a geographical atlas, studies in geography can be grouped and many geographical stories told; and you can look at the maps in any order. So, too, many stories can be spun around our charts, and you can, if you wish, look at the last before the first.

Those who look at maps often want to draw maps of their own. In the same way, we hope that our charts will make you want to tell stories by pictures, using symbols like ours or others which you could invent yourself. If you turn to page 48, you will find a few suggestions how this might be done. Whether you do this or not we hope you will enjoy our stories and find them exciting and easy to remember.

The Editors

The Ages of Man

Notice that two different date-lines are shown here. The second (the eras of history) is a small part of the first made bigger.

1
Are the ice ages getting longer or shorter?

2
About how many years was the last ice age?

3
Is it likely that another ice age will begin soon?

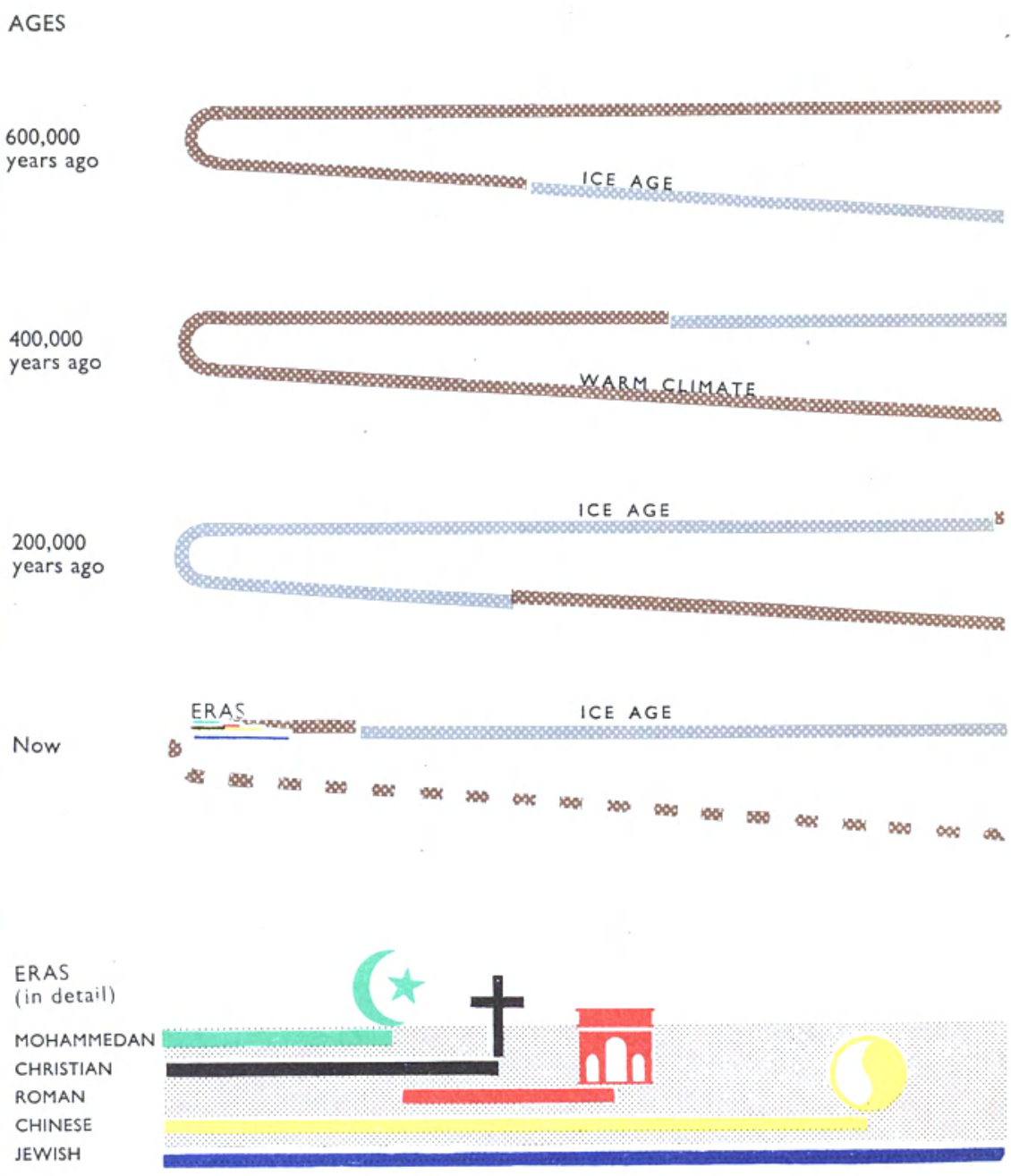
4
How many ice ages have there been during the last half-million years?

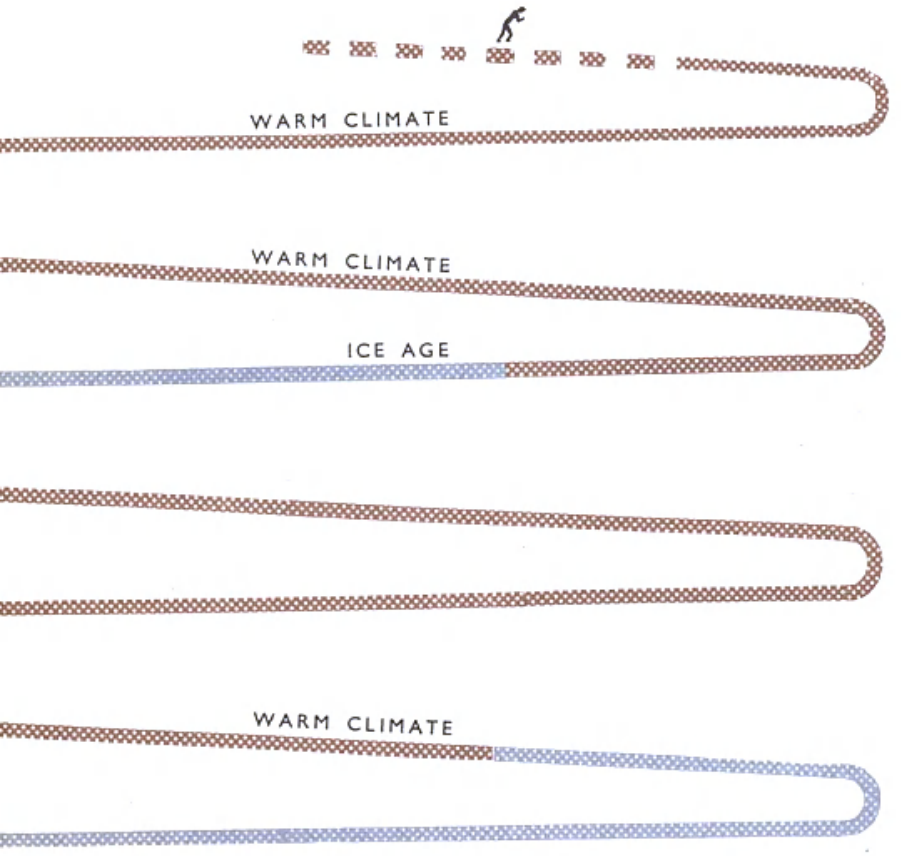
5
About how many years does the black line stand for?

6
About how many years does the blue line stand for?

7
Which era started first?

8
Look at chart 2, and compare it with this one. At about what points in the date-line would you put each of the pictures?





700,000 years ago

500,000 years ago

300,000 years ago

100,000 years ago

9
Look at charts 5 and 20 in this book and decide whereabouts on these date-lines the scenes shown took place.

10
Which era is no longer used to-day?

11
About how long has the Jewish era lasted already?

12
About how long did the Roman era last?

13
About what fraction of the whole length of the line is the Jewish era? About what fraction is the Christian era?

14
Is the Chinese era still used?

15
Did men manage to live through the ice ages?

16
Why have the era lines been made to start on the right and not on the left?

Chart 1

Man comes on the Scene

1
Which of the pictures shows things that happened perhaps 100,000 years ago? Millions of years ago? Thousands of years ago? Hundreds of years ago?

2
Which animal is a dinosaur? A mammoth? What other animals can you spot?

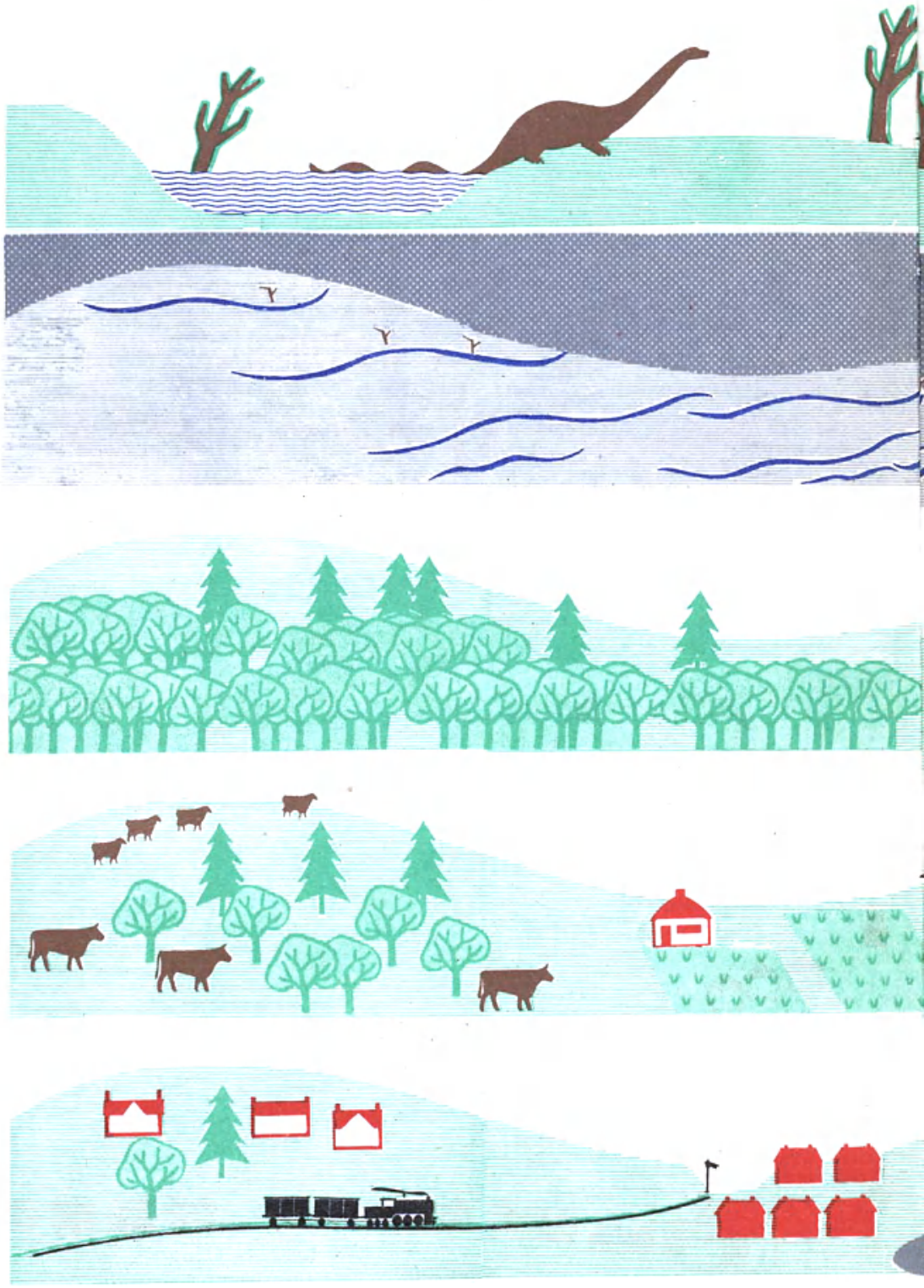
3
When was the climate coldest?

4
Look at other charts in this book to see whether you can find anything in them that is like scenes on this chart.

5
What other chart in the book tells you whether the men could have killed the mammoth or the bear?

6
Why is it that trees seem to be getting fewer?

7
Between which two periods did the number of men alive grow most quickly?



8
In picture 2, does it look as if the climate was getting warmer or colder?

9
What animal to-day is like a mammoth?

10
What are the most striking differences between pictures 4 and 5?

11
Tell how the way men spent their time changed little by little from picture 3 to picture 4, to picture 5.

12
Did men and dinosaurs live at the same time?

13
Is it possible to put the time of the first picture anywhere on chart 1?

14
Whereabouts on chart 1 might the time of the second picture be placed?

15
Look at chart 5. Can you now say where the three men in the third picture on this page would take shelter for the night?

Chart 2

Early Man and Animals

These pictures show events that took place many thousands of years ago, when great parts of the earth were covered with ice.

1
Give the names of the animals you can see.

2
Which of these animals are dangerous when wild?

3
What uses of fire are shown in the pictures?

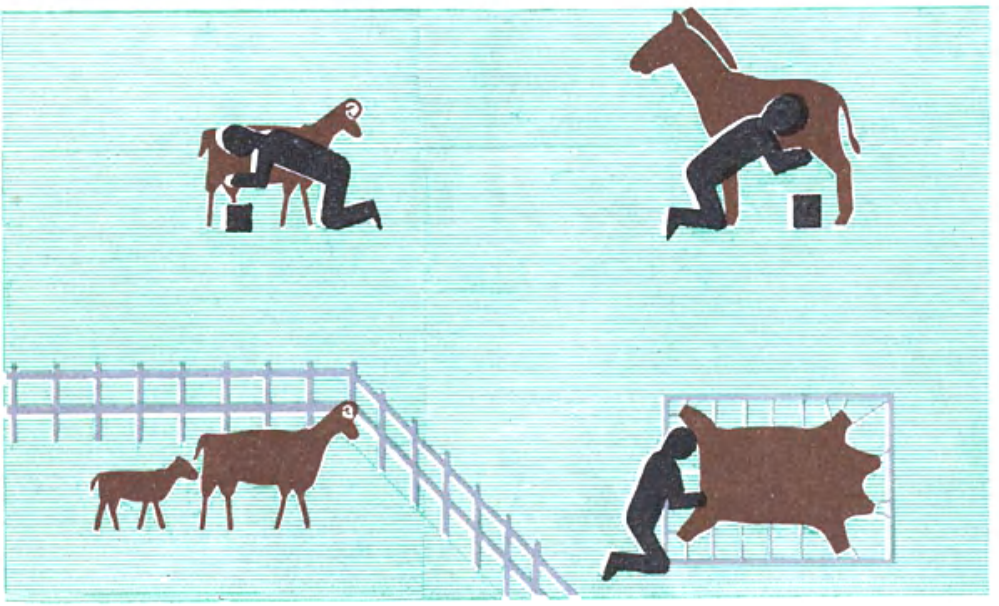
4
How is the fire kept alight?

5
What weapons are the men using?

6
Say what the men are doing in each picture.

7
Why should the animals come near the fire?

8
Would the animals come very near the fire or touch it?



9
Why do not the men shoot the horse?

10
Are horses still used to give milk?

11
Do we still get leather or hides from horses?

12
Are goats and sheep still used to give milk?

13
For what other purposes, not shown in the pictures, are goats and sheep used?

14
Tell a little story about the way in which early men used fire as protection against fierce animals.

15
Tell a little story about the way in which fire helped early men to tame some wild animals.

16
Which of the things you see early men doing in the pictures are still done by us, or by other peoples, nowadays?

Chart 3

Dog and Man get together

1
Say what the dogs are doing in each of the pictures on the left.

2
What is the hyena doing in each picture?

3
What do the dogs gain from hunting with the hyena?

4
Do wild dogs and hyenas still hunt together in any part of the world?

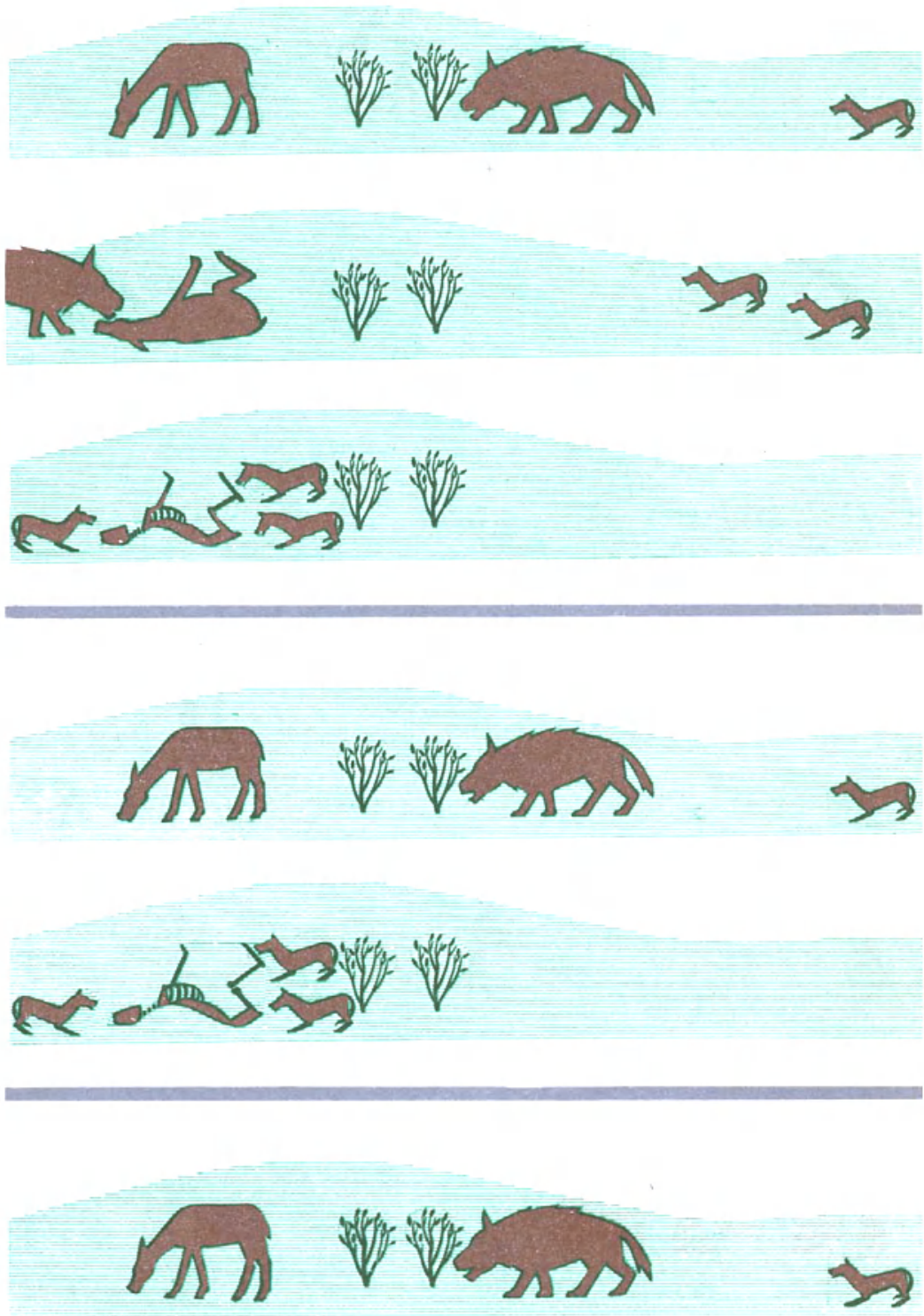
5
What weapons are the men using?

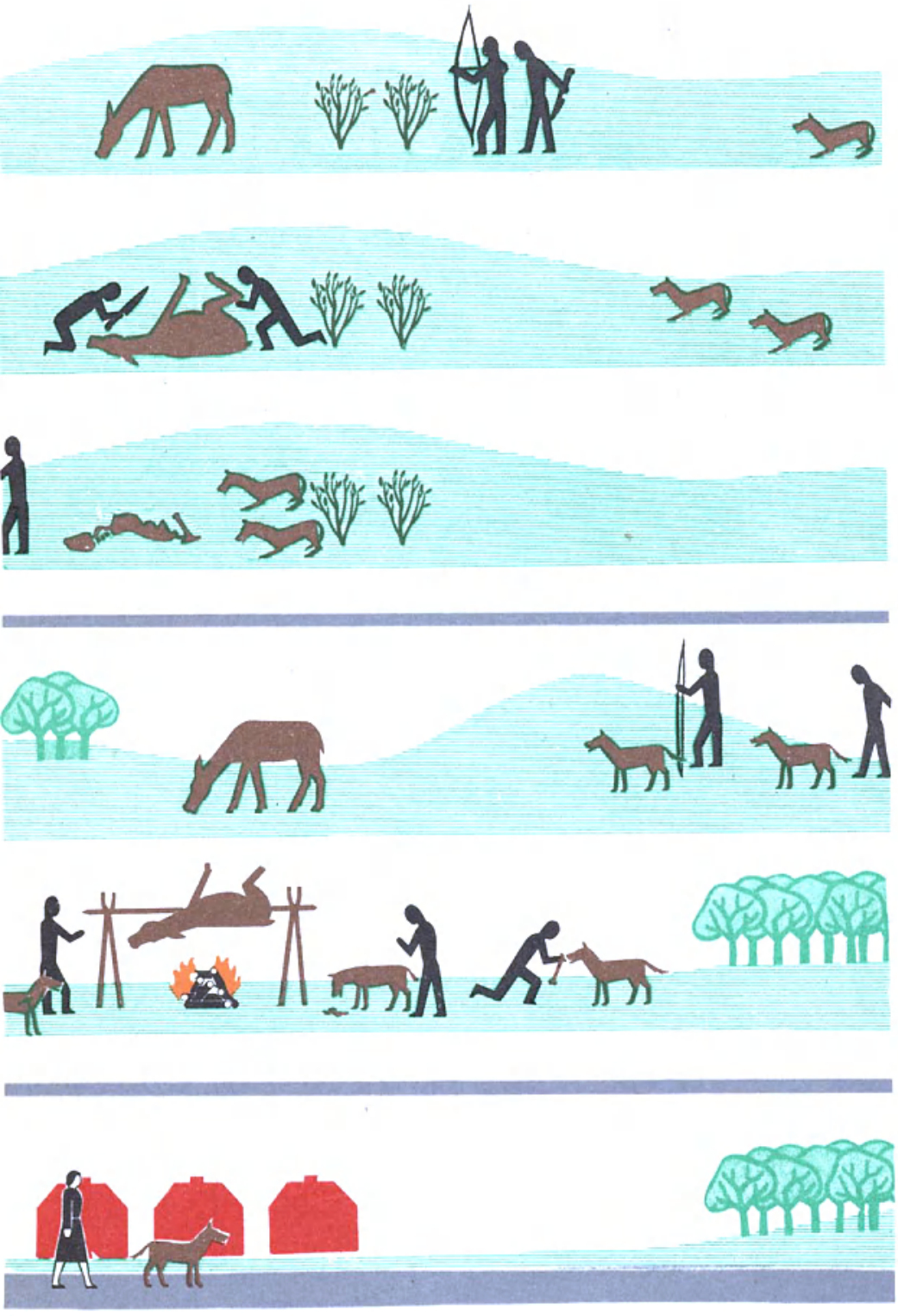
6
Say what the men are doing in each picture.

7
Say what the dogs are doing in each of the pictures on the right.

8
In which pictures are the dogs afraid of the men?

9
In which of the pictures do the dogs behave towards men just as they do towards hyenas?





10
Do the dogs go on behaving in the same way (i) to hyenas, (ii) to men?

11
What do the dogs gain from hunting with men?

12
What do the men gain from hunting with dogs? (See also chart 6.)

13
Are dogs still used for hunting nowadays?

14
What other animals besides dogs help man in his hunting?

15
Can you explain how it is that dogs and men should come to hunt together as friends?

16
The dogs shown on the right are different in shape in each set of pictures. How did this come about?

17
What kinds of food became easier to get once men and dogs learned to live together?

Chart 4

How Cave Man hunted big animals

1
Name the animals you can see in these pictures.

2
Which of the men in the first picture is digging? Which is gathering berries? Which is hunting for snails?

3
What is the woman in picture 1 doing?

4
Why is the fire kept outside the cave?

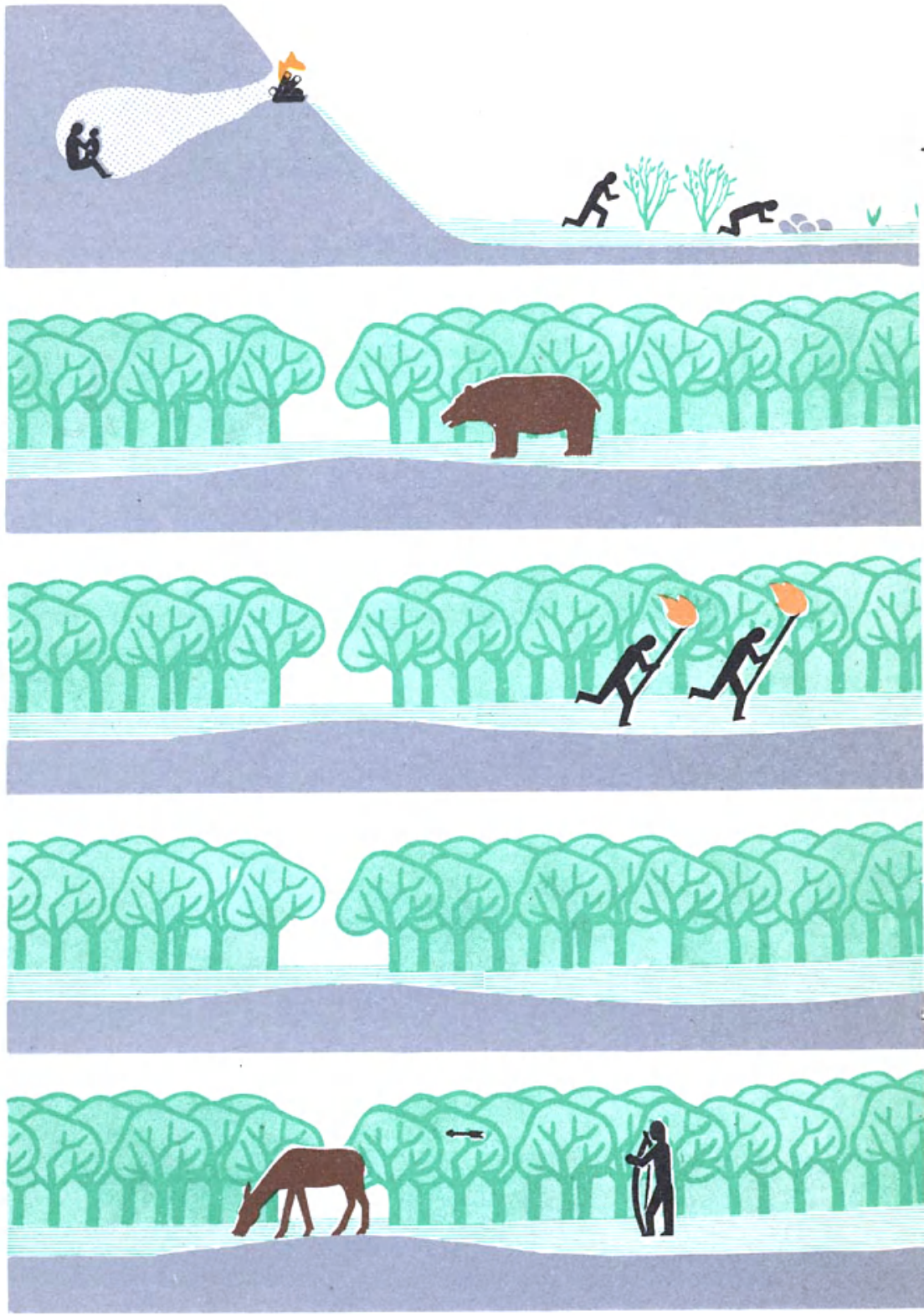
5
What are the two men doing in pictures 3 and 4?

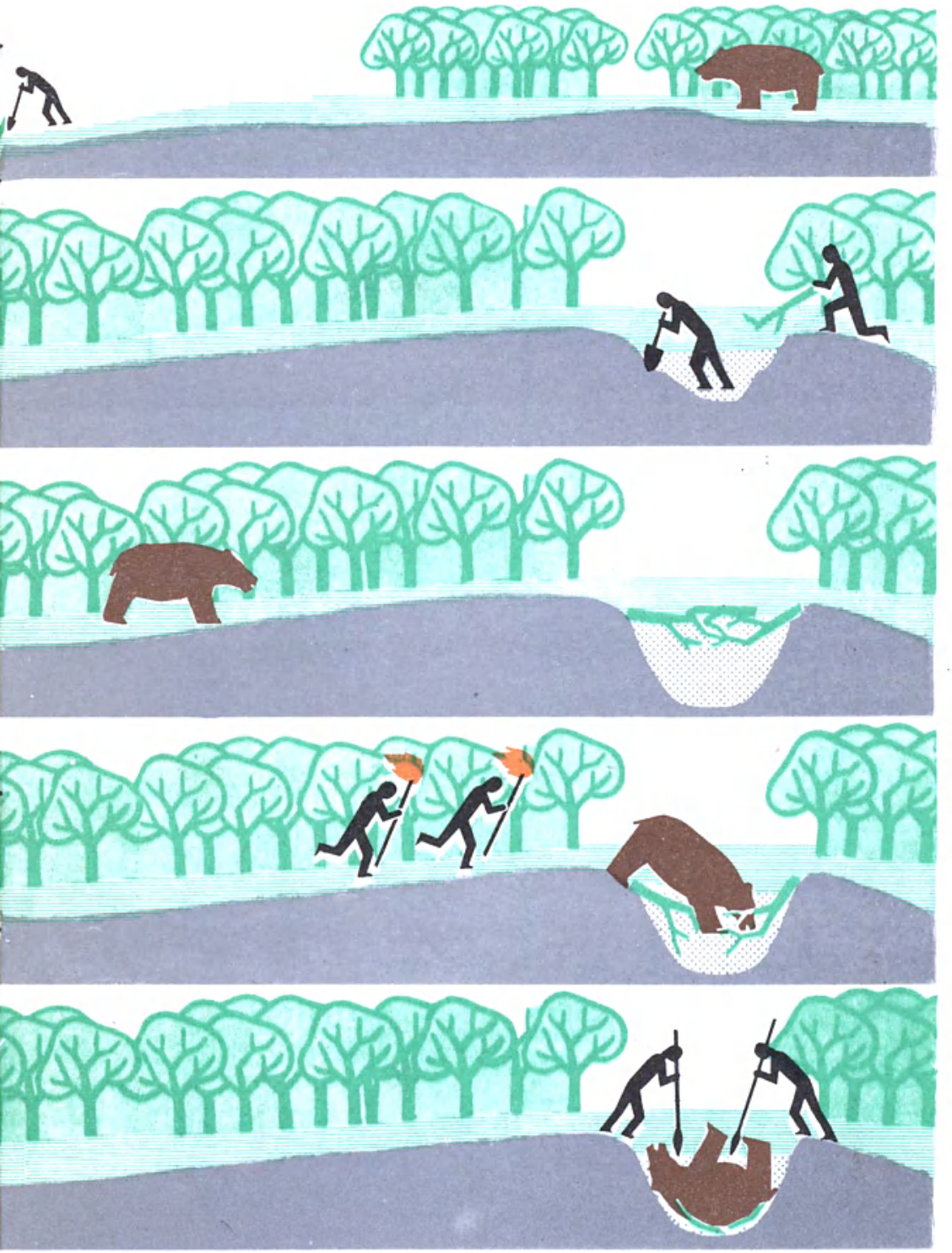
6
Where did these two men get the fire from?

7
Why is the bear running away?

8
Why do you think the men have covered the pit with branches?

9
How is it that the animal falls into the pit in picture 4?





10
What is each of the three men doing in picture 5?

11
Name all the weapons and tools which the men have used in these pictures.

12
Which do you think is the stronger, a bear or a man?

13
Which do you think is the more clever?

14
Explain how cave men sometimes killed big and fierce animals.

15
Do men anywhere still capture big animals like this nowadays?

16
How is the man in picture 5 trying to kill the deer?

17
Did this story take place during an ice age?

Chart 5

Man makes use of Animals

1
Name the two animals shown which are used for hunting.

2
Explain what the dog does and what the man does.

3
How does the dog help the man and the man the dog?

4
Why is there a hood on the head of the hawk in the first hawk picture?

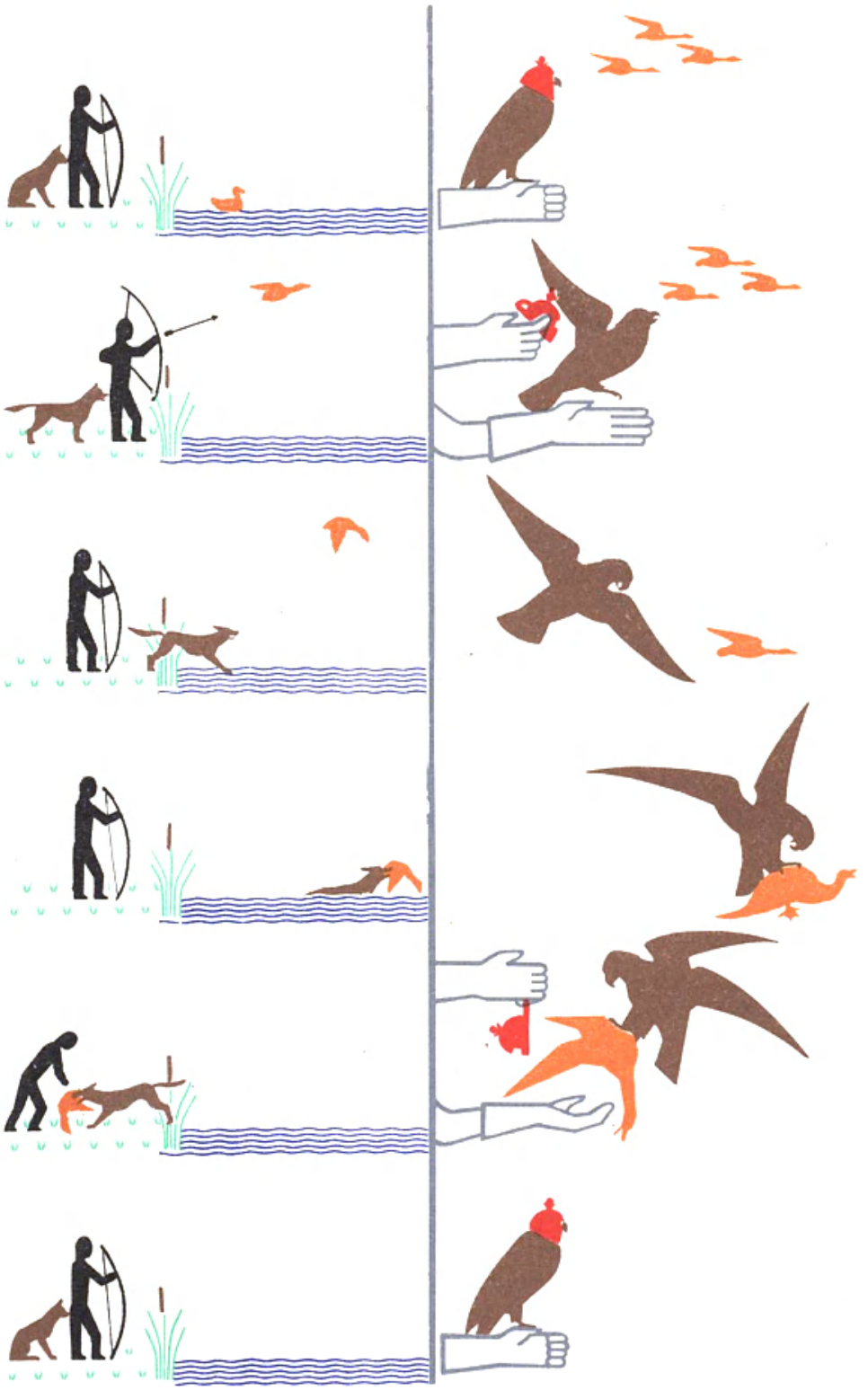
5
Explain what the hawk does when the hood is taken off.

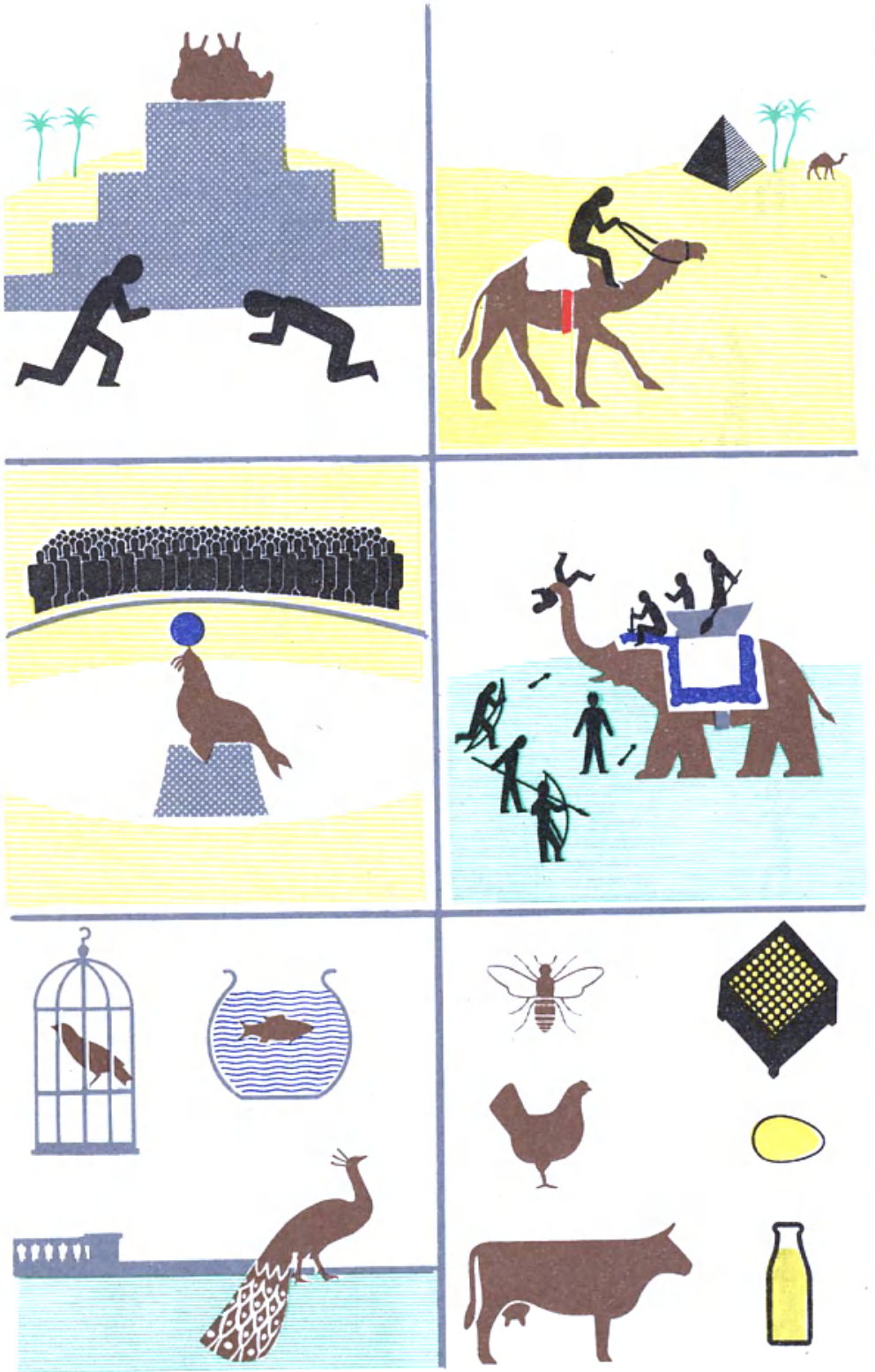
6
Are dogs still used like this anywhere?

7
Name two other animals used for hunting.

8
Why does the man hunting with the hawk wear gloves?

9
If you went hunting with a gun, which would be the more useful, the hawk or the dog?





10
What are the men doing in front of the altar with four steps?

11
What things other than animals have men worshipped?

12
In which picture can you see camels? What country is being shown? What are the camels being used for?

13
Give the names of three animals used for carrying goods or people.

14
What is the name of the animal being used to amuse people? Give the names of four other animals used for amusement.

15
Explain what the elephant is being used for. Where have elephants been used like this?

16
Name the three pets shown. Name three not shown.

17
Three animals are shown as producing food which we eat. What are they? What food do they give?

Chart 6

Tools and their uses

1
In this chart, what is the colour brown used to show? What does the colour blue show?

2
Which of the tools shown is called a sickle, a gouge, a drill, a lathe?

3
Name all the tools shown.

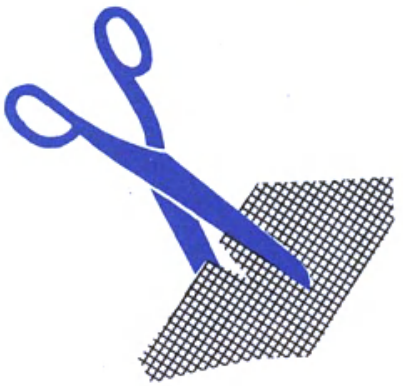
4
Which of the tools are used by hitting the material being handled?

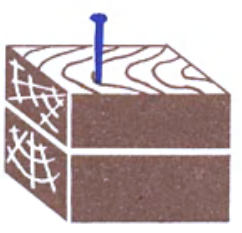
5
Which of the tools shown are used by being placed on the material and then moved along?

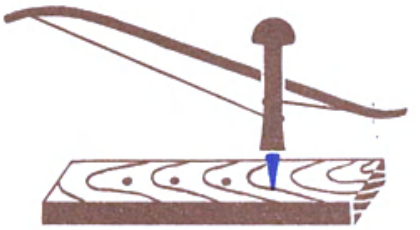
6
Explain how a bow can be used to make drills move round and back.

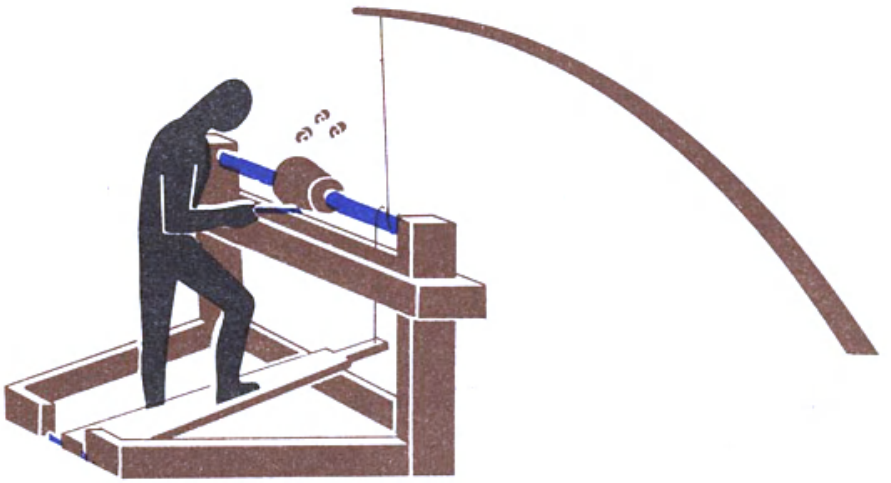
7
Explain how a bow and a gouge together can be used to shape and fashion a round piece of wood.

8
Explain how the foot-lathe shown works. Why is it a better tool than the hand-lathe shown just above?









9
Name three tools of the nail-family.

10
A bow is used to make a drill move round and back in two pictures. Explain the differences in the effect between the two pictures.

11
Can you see another way of making a drill move round, besides the bow?

12
Which of the tools shown could be made entirely of wood?

13
Explain what each of the tools is being used for in each picture.

14
In which case is one tool doing the work of two?

15
Which of the tools shown have you got at home?

16
In which other chart do you find a bow used to make a drill move round and back? For what purpose?

Chart 7

Getting Fire
Keeping Fire
Making Fire

1
Explain how the tree in the first column of pictures catches fire.

2
What do the men in the first column of pictures do?

3
In some pictures lava comes down the side of a hill. What does it do to the bush when it touches it?

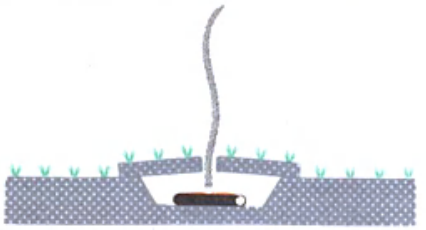
4
What is the name given to a mountain from which lava runs?

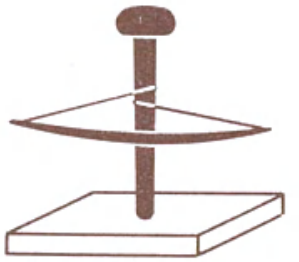
5
Look at chart 21. Then say what else besides lava can come from a volcano.

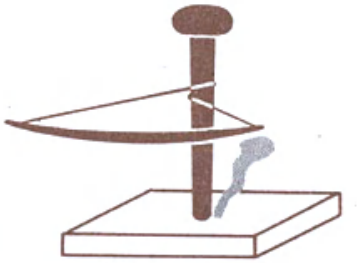
6
Explain what the men are doing in the second column of pictures.

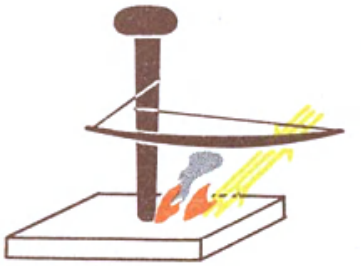
7
Does lightning and do volcanoes often set fire to trees?

8
How could the men take fire some distance from a volcano?









9
Would early men, before they learned how to make fire, find it easy to get fire? Explain.

10
Explain what the man is doing in the third column of pictures.

11
Why does the fire flare up again when the man in the third column of pictures takes up the blocks of turf?

12
Look at the fourth column of pictures. In what other chart can you find a bow used to make a drill go round?

13
Explain how the fire gets lit in the fourth column.

14
In the fourth column, yellow stands for straw. Why is it being used?

15
What uses of fire have you come across in charts printed in this book? Give a list of the uses of fire.

Chart 8

Tools in Flint
Tools in Copper
Tools in Iron

Flint is a stone which flakes easily. Copper and iron are made out of stony material called ore. To get metal from ore, it is mixed with charcoal and made hot. Iron ore needs more heat than copper ore.

1
In picture 1 which man is flaking bits of flint from a large lump? Why is he doing this?

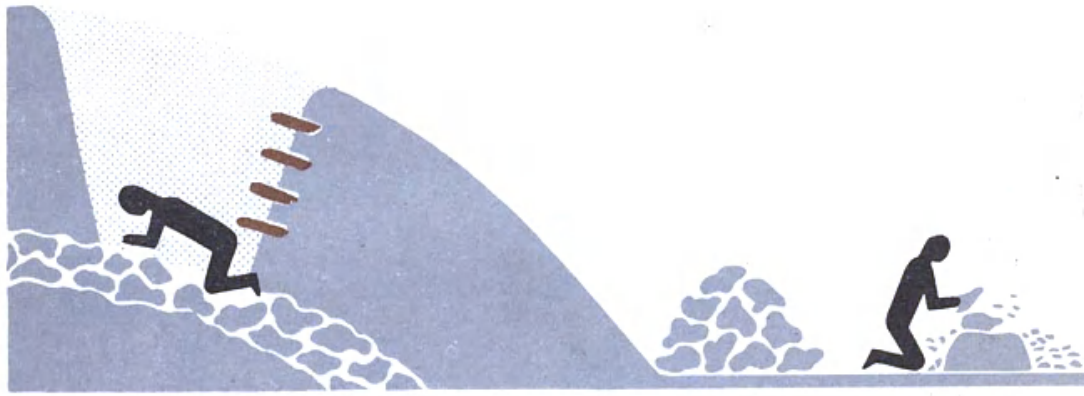
2
What is each man in picture 1 doing?

3
With what material could a flint axe-head be tied to a handle?

4
What could be done when a flint axe-head gets blunt and chipped?

5
What tool is the man using who is chipping off copper ore in picture 2?

6
Hot copper ore cracks when cooled quickly. How was use made of this to get small lumps of copper ore?



7
How is the copper ore being moved about?

8
Explain how copper can be made from copper ore.

9
Why is the man who is making copper using a blowpipe?

10
How will the copper be got out of the furnace?

11
How is a copper axe-head made from a lump of copper?

12
How could a blunt copper axe be made fit for use again without a grindstone?

13
How is an iron axe-head made out of a lump of iron?

14
How could an iron axe-head be re-sharpened?

15
What do you think are the reasons why iron tools took the place of copper tools?

Chart 9

How Man uses Fire

1
In which pictures do you see a hog being cooked? Why is it being turned round and round?

2
How do we grill meat at home nowadays?

3
Explain how the corn shown is made first into flour.

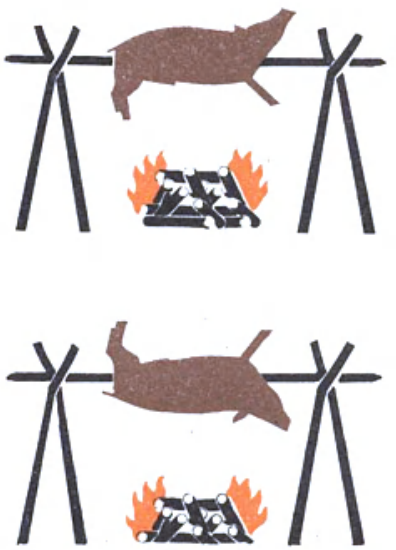
4
Flour can be mixed with water to a paste. How was this paste made fit for eating?

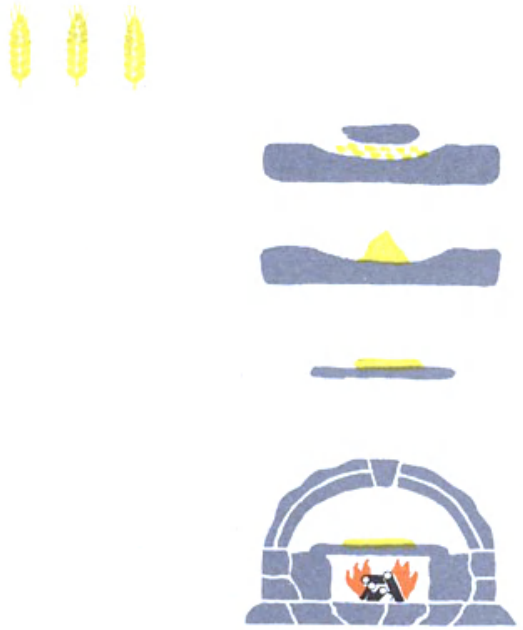
5
Name four other foods besides meat and corn which need fire before being ready for eating.

6
The basket shown is made of sticks and lined with clay. Why can it not be put straight on the fire?

7
Explain how water could be boiled in a wooden vessel.

8
What other way of boiling water is shown? Which of the two ways will save fuel?





9
A man in a white gown is shown in front of an altar. What is he about to do?

10
What animal is about to be sacrificed by the priest?

11
Explain all that is happening in the two pictures showing an altar.

12
In two pictures a dead man is shown lying flat on a stretcher. Explain what is happening.

13
In what ways can dead bodies be got rid of? Why must they be got rid of?

14
Explain how news of the shipwreck gets to the king.

15
Why are the fires in the shipwreck pictures put on the tops of hills?

16
Look at other charts in this book to find other uses of fire. Make a list of the uses of fire.

Chart 10

From Forest to Coke and Charcoal

1
Coke and charcoal are both chiefly the same material called carbon. In which colour is carbon shown on the chart?

2
What colour is used to show woody stuff?

3
Is ordinary coal pure carbon?

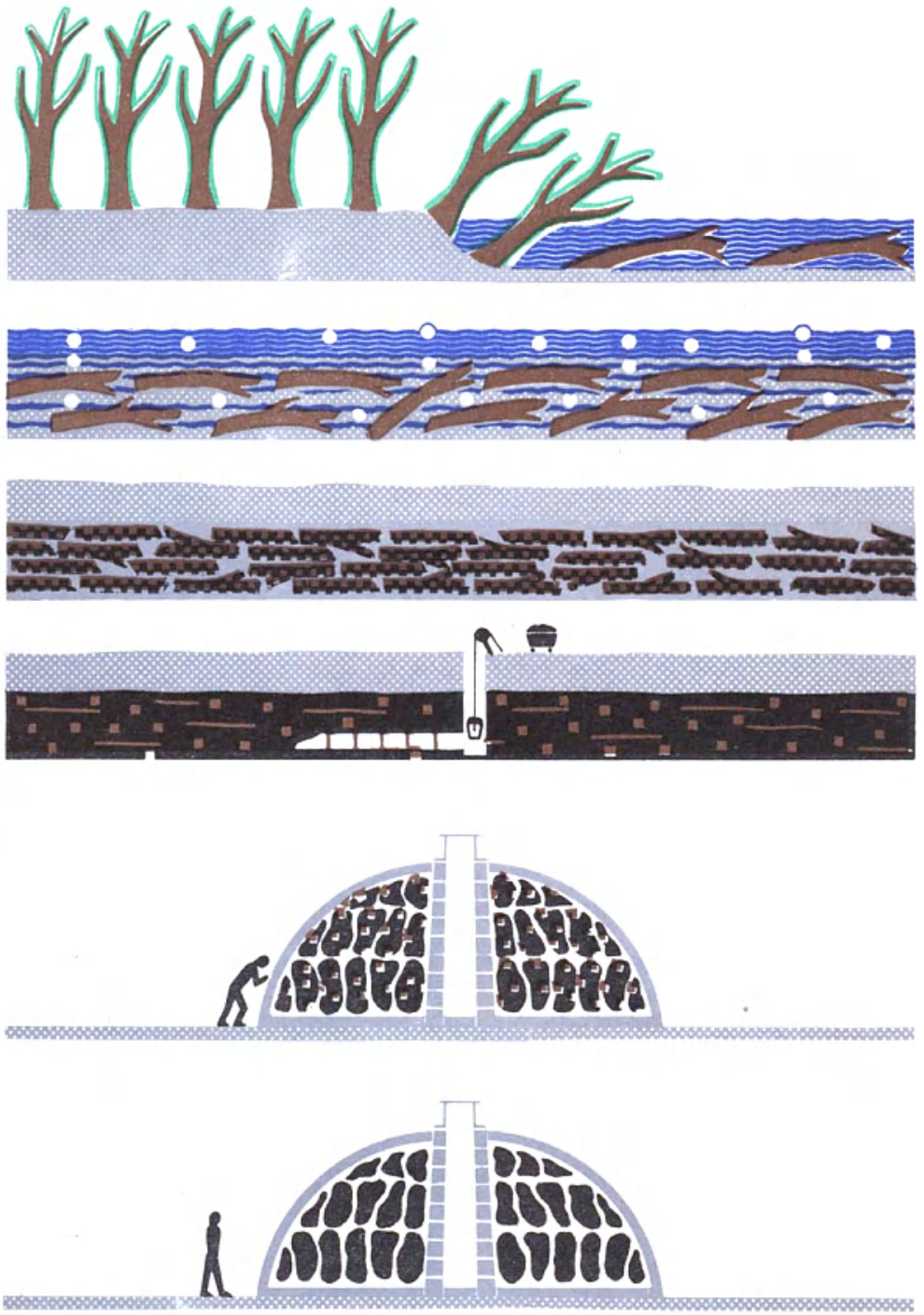
4
When were trees shaped like those on the left?

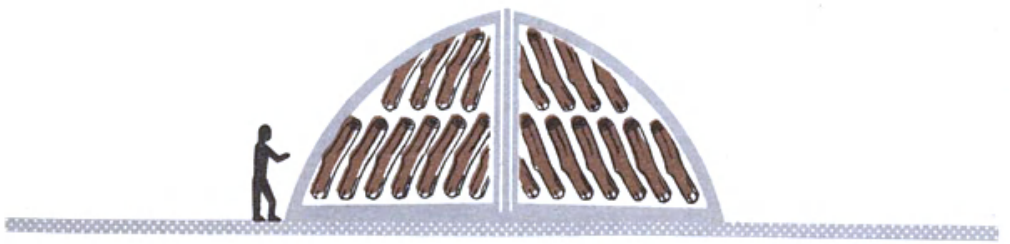
5
How did the trees in the ancient forest come to get covered with water and mud?

6
What are the white dots coming up through the water from the rotting wood in the second picture on the left?

7
Explain how men get coal out of the ground.

8
What use is the tube or chimney in the middle of the ovens?





9
What are the men doing in the first picture on the right ?

10
Where would charcoal burners usually build their kilns or ovens?

11
To change the wood in the kiln into charcoal it must burn, but not too strongly. How is this done?

12
What could charcoal burners cover their kilns with?

13
What are the differences between charcoal and coke?

14
Explain why charcoal is more expensive than wood.

15
What would happen to the wood in the kiln when it was set alight, if it was not covered to keep the air out?

16
Look through the other charts in this book to find some uses of charcoal.

Making Light

1
How can the branches of a tree be used to give light?

2
In what charts do you see men who use torches? How may they have set their torches alight?

3
In what two different ways can the fat of an animal be used to give light?

4
In the third line olives are shown. How can oil be got from olives?

5
Look at the shapes of the vessels in lines 2 and 3. What differences do you notice?

6
Explain how a candle can be made, starting with the fat of a sheep.

7
Explain how whale oil can be used to give light.

8
Which of the ways of getting light could be used in their homes by farmers who had to make everything they needed?

TORCHES

FAT

OLIVE OIL

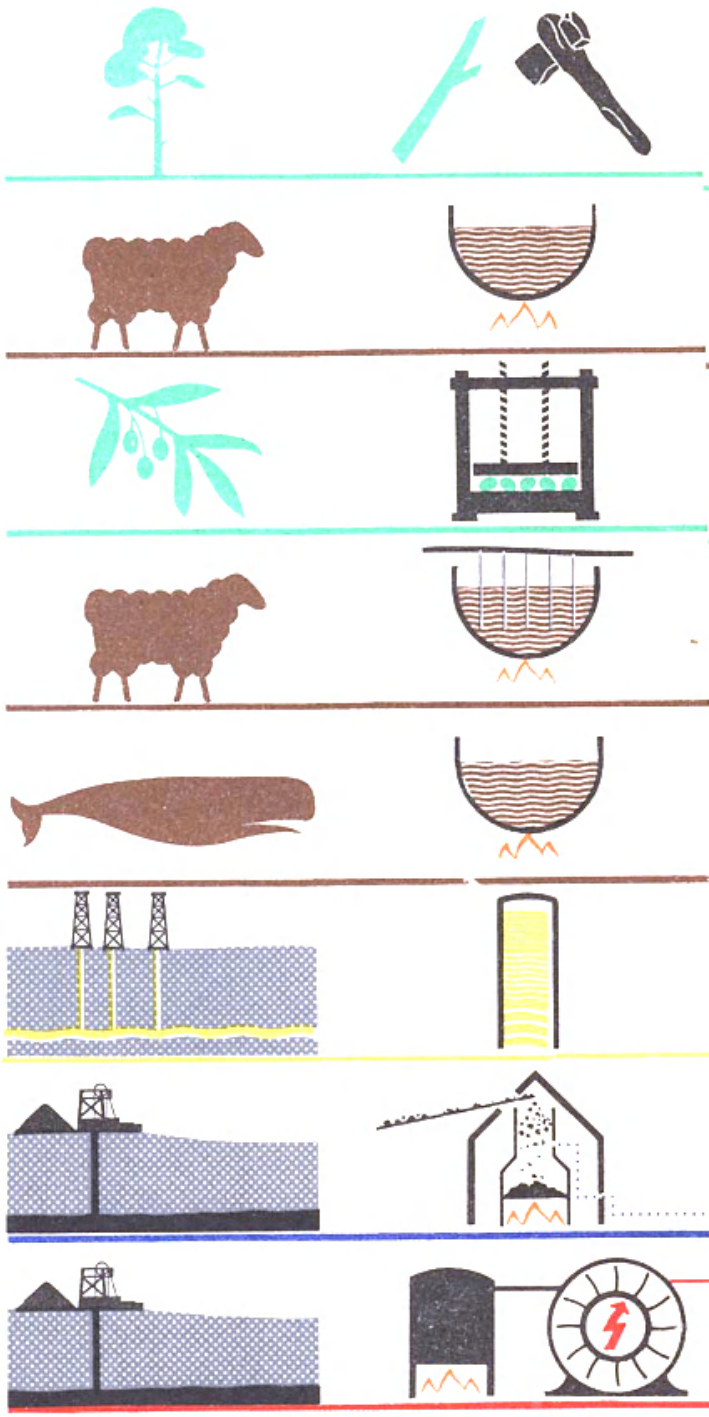
CANDLES

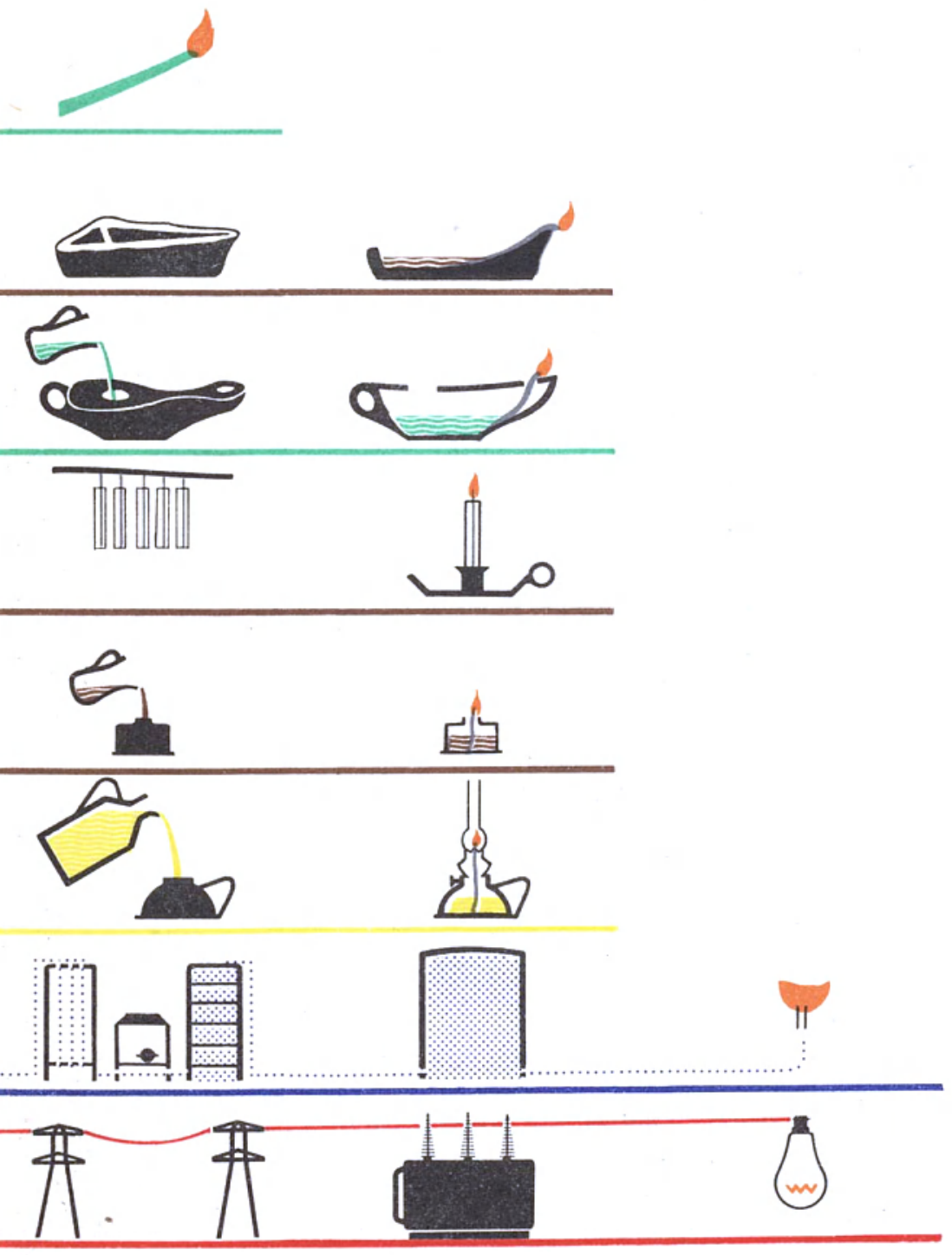
WHALE OIL

MINERAL OIL

GAS

ELECTRICITY





9
In which lines are wicks used to give light? In what condition — solid, liquid or gas—must fuel be before a wick can be used?

10
Say how coal can be got out of the ground.

11
Which of the oil lamps shown would give the most steady light?

12
How can gas be got from coal? How can gas be used to give light?

13
In line 7, which is the burner? The gas holder? The oven? The purifiers?

14
In line 8, which is the electricity generator? The transformer? The pylons? The lamp?

15
Why are the lines drawn under each set of pictures different in colour? What do you think each colour stands for?

Chart 12

Making and using Boats

1
Explain what each man is doing in the top left picture.

2
You can see a man cutting down a tree. What is the axe he is using made of?

3
Explain why it is better for two men to paddle the log than for one.

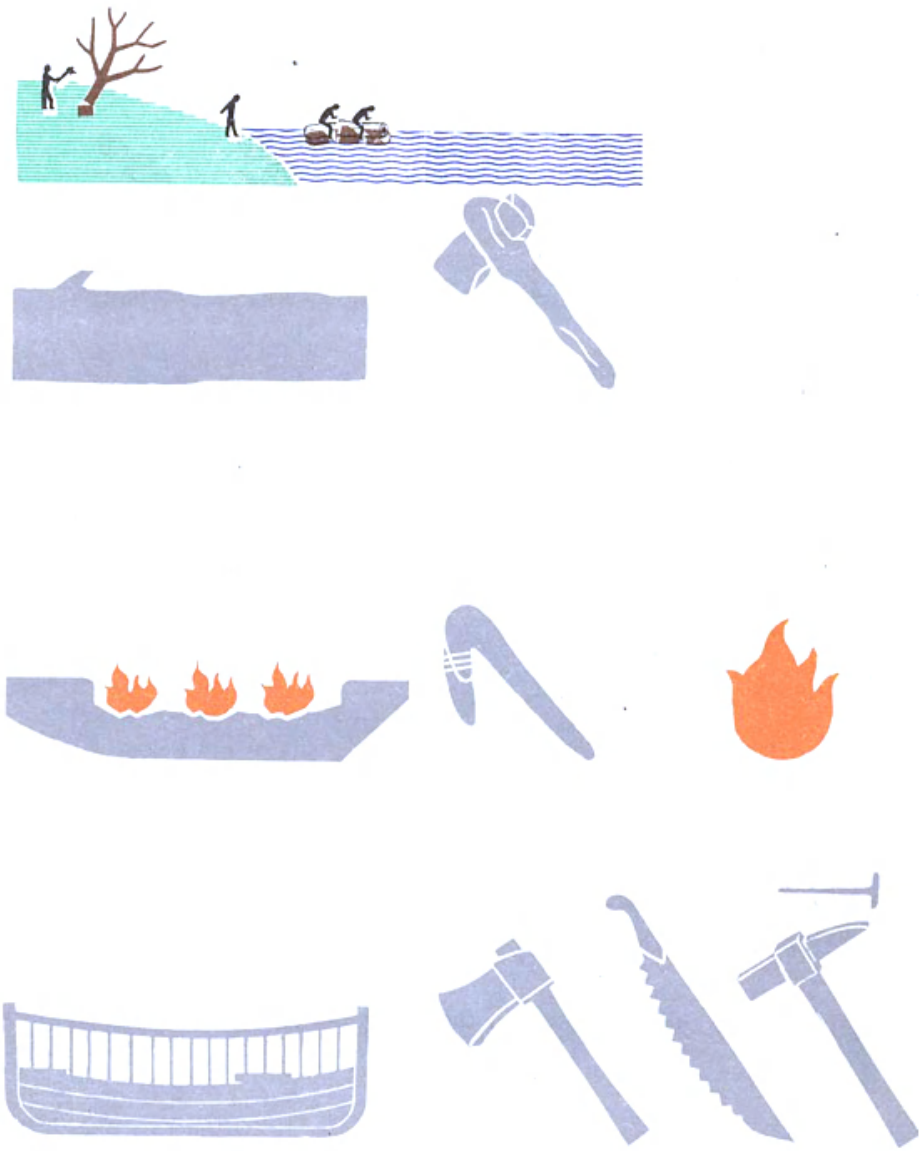
4
What drawbacks are there to using a log in the way shown?

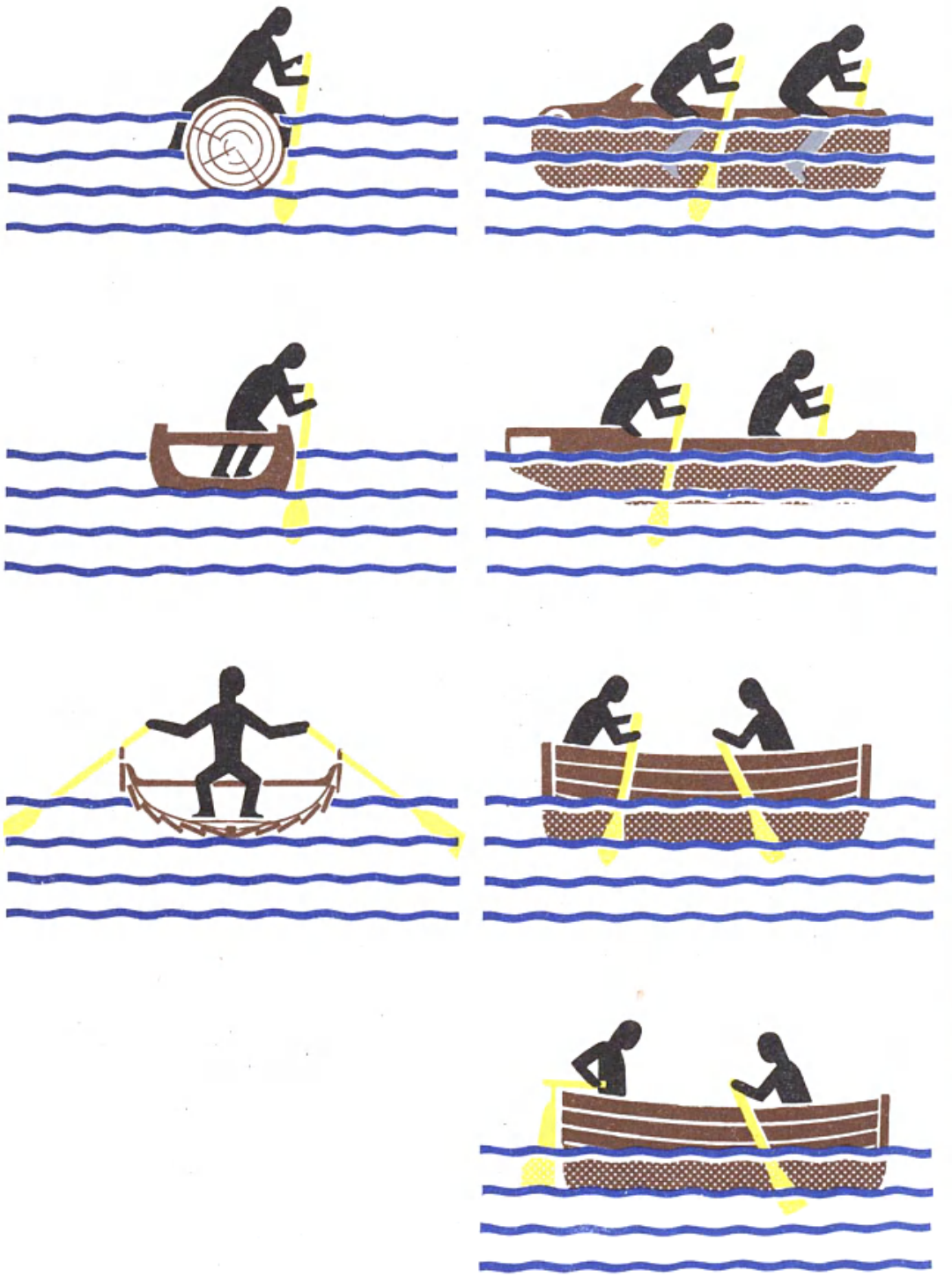
5
Explain how a log can be hollowed out by men who have only stone tools.

6
Why is the hollow log flattened at the bottom and tapered at the ends?

7
In what ways is a boat made of planks better than one made from a hollow log?

8
What tools are chiefly used in making a boat from planks? Explain how each is used.





9
What new invention made it possible for men to use oars instead of paddles? Why are oars usually better than paddles?

10
What is the first man in the third boat using his paddle for?

11
What are the differences between the third and the fourth boats in the last column? Why is the fourth better?

12
Explain how a plank boat can be made from a tree.

13
What did men gain from using boats?

14
What other material besides wood is used nowadays for making boats?

15
Look at other charts in this book and find men who are able to make boats out of planks.

16
In what ways does the last of the boats shown differ from a racing boat?

Three kinds of Bridge

1
Which two bridges are in some ways like one another?

2
Explain how a rope bridge could be made. What materials could the rope be made of?

3
Are rope bridges made anywhere nowadays? What are their drawbacks?

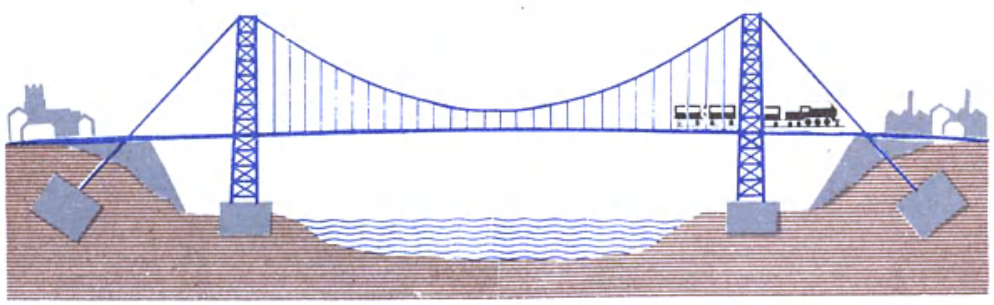
4
Explain how a stone bridge can be made. How could one bridge a very wide river with stone?

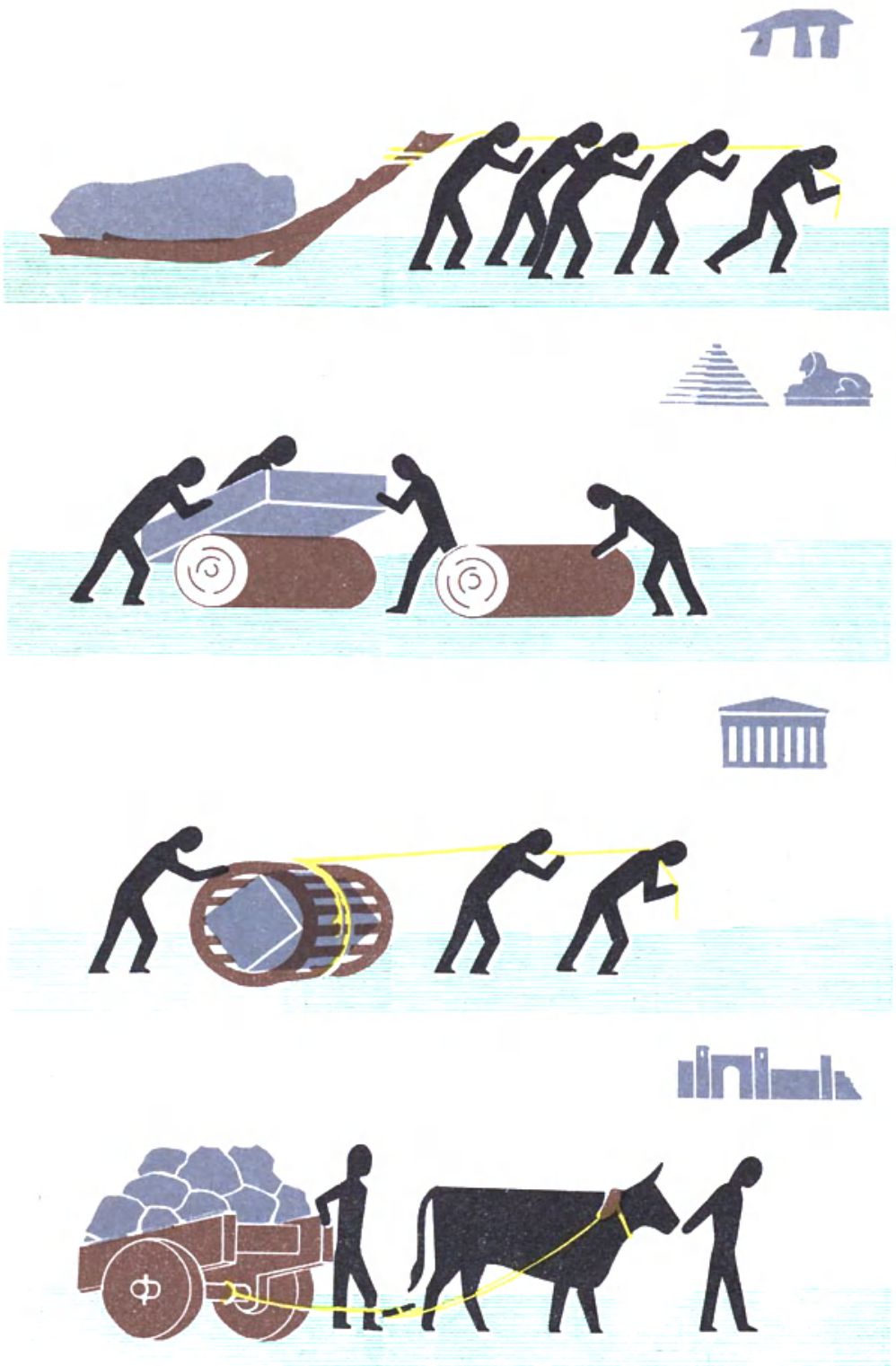
5
In what way is a suspension bridge better than a stone bridge?

6
Explain where stone bridges are mostly used.

7
Give the names of some famous suspension bridges.

8
Give some idea of how a suspension bridge would be made.





Moving heavy stones

1
Look at the top picture. What are the five men doing? Why do they not tie their rope directly to the stone?

2
Do you know of any building which might have been made by men like those in the top picture?

3
Name some buildings which may have been made by men like the four in the second picture.

4
Explain how the four men in the second picture moved stones from one place to another.

5
What inventions did men have to make before they were able to use oxen to move stones about?

6
What advantages are there in using small rather than big stones for building?

7
Tell the story of how men learned to move stone from place to place.

Charts 14 & 15

The Lake Dwellers

1
What are the men in the boat doing? How may they have made this boat?

2
What are the men on the platform doing?

3
What are the men on the land doing?

4
What animals are shown?

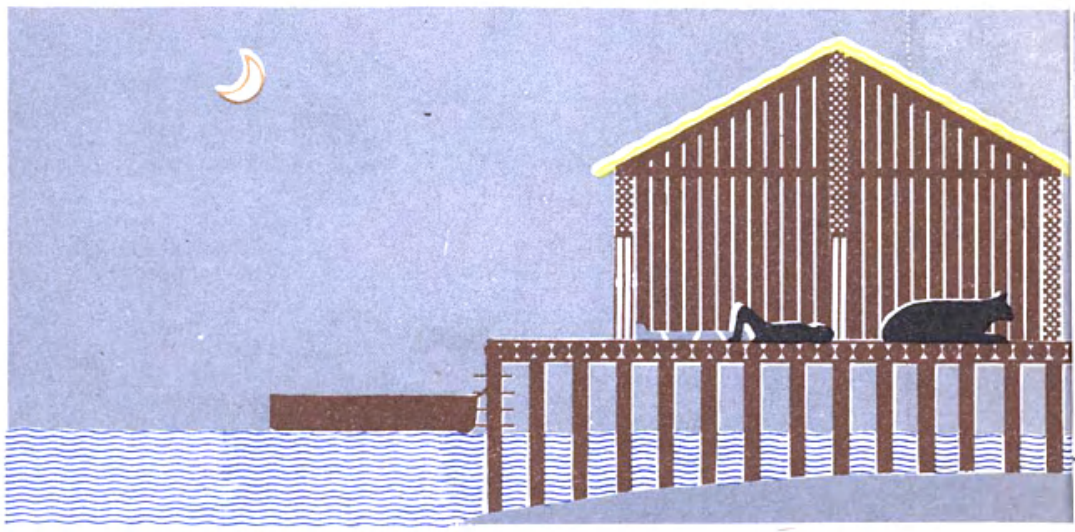
5
How did lake dwellers keep their fire from setting their house alight?

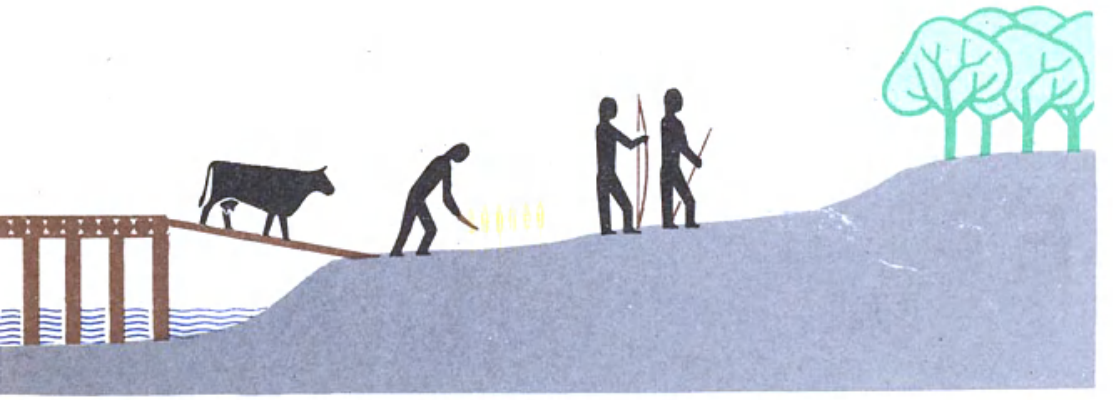
6
What kinds of food did lake dwellers eat?

7
What did the lake dwellers do when the sun went down?

8
What advantages did the lake dwellers get from putting their house over water?

9
Which of the tools shown are fish hooks? Which is a scythe? A harpoon? A saw?





10
Give a list of the tools and weapons used by lake dwellers.

11
Which of the tools and weapons shown could be made out of bone? Which out of stone?

12
Explain how lake dwellers may have built their houses.

13
Name some places where lake dwellers may have lived.

14
What kept wolves from the lake dwellers' cows?

15
For what purpose could each of the tools or weapons of the lake dwellers be used?

16
Are there any people nowadays whose methods of building and living are like those of lake dwellers?

17
Name two things the lake dwellers did which we do.

Chart 16

The Early Farmers

1
Out of what materials would these farmers make their houses?

2
What advantages did they get by putting the house partly below the ground?

3
What is the person, outside the house in the top picture on the right, grinding?

4
Give some reasons why the plan of the house shown is a good one.

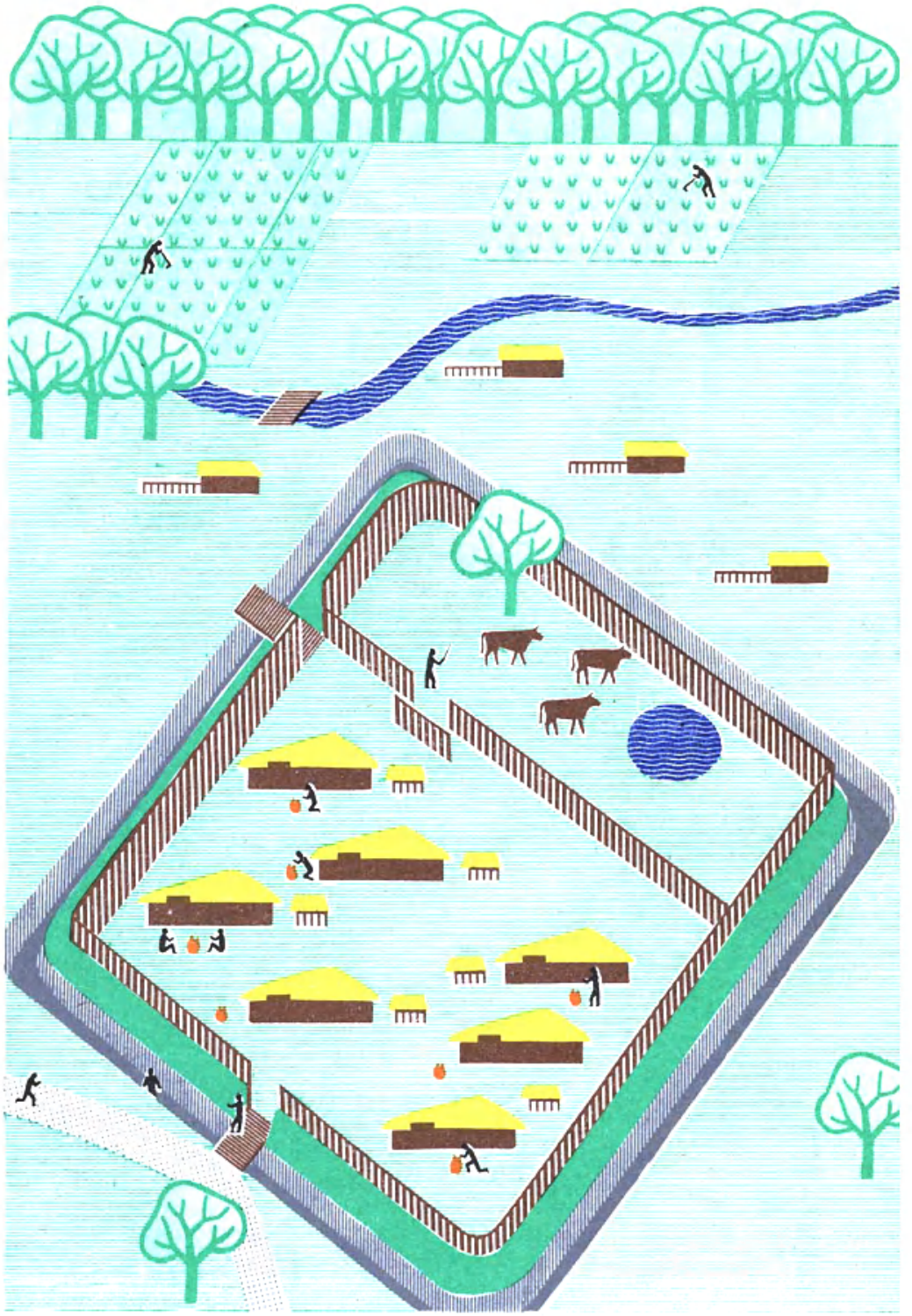
5
Where did these farmers keep their fire?

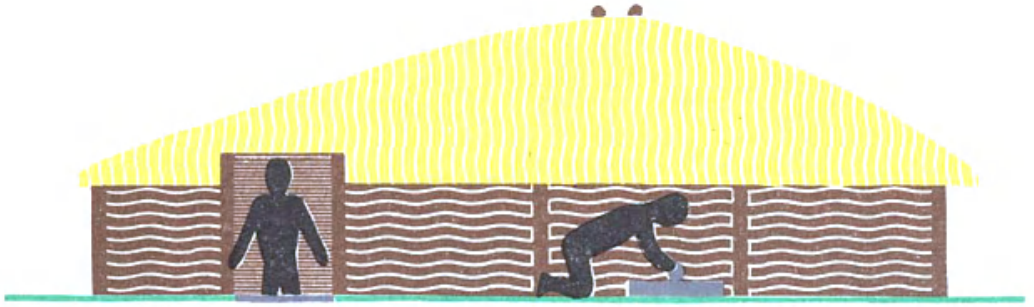
6
What kinds of food would these people chiefly live on?

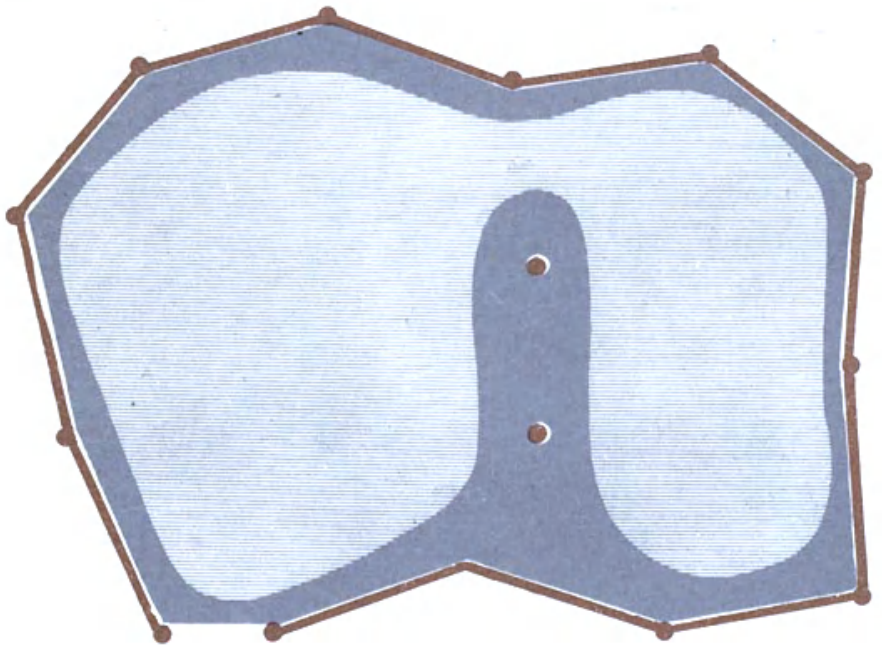
7
Why was a fence built round the village?

8
What other protection did the village have?

9
Against what did the villagers want protection?







10
From where did these farmers get their water?

11
In what parts of the world do people still live like the farmers shown?

12
What tools did these farmers use to dig the ground?

13
What sort of bridges did these farmers use and how were they made?

14
What other animals besides cows might these farmers have near them?

15
Why did these farmers not keep their fire inside their houses?

16
Which of the buildings shown were store-houses?

17
What do you think the farmers may have kept in the large store-houses? In the small store-houses?

Chart 17

Making Clothes

1
What animals can you see?

2
In what other charts can you see skins being got ready?

3
In what line can you see the plant called flax?

4
In what line can you see a cocoon?

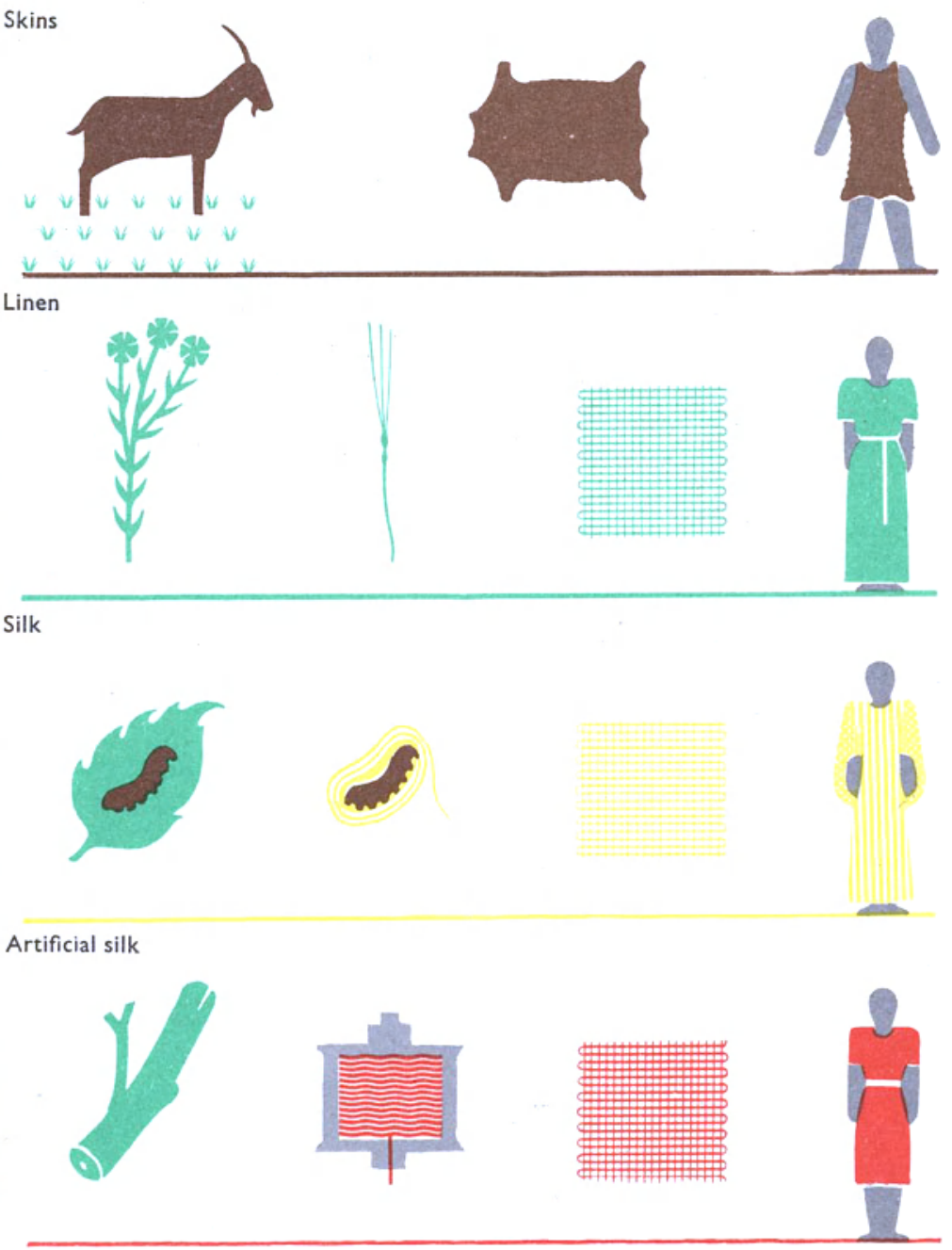
5
The red garment is made of artificial silk. From what material can you start to make artificial silk?

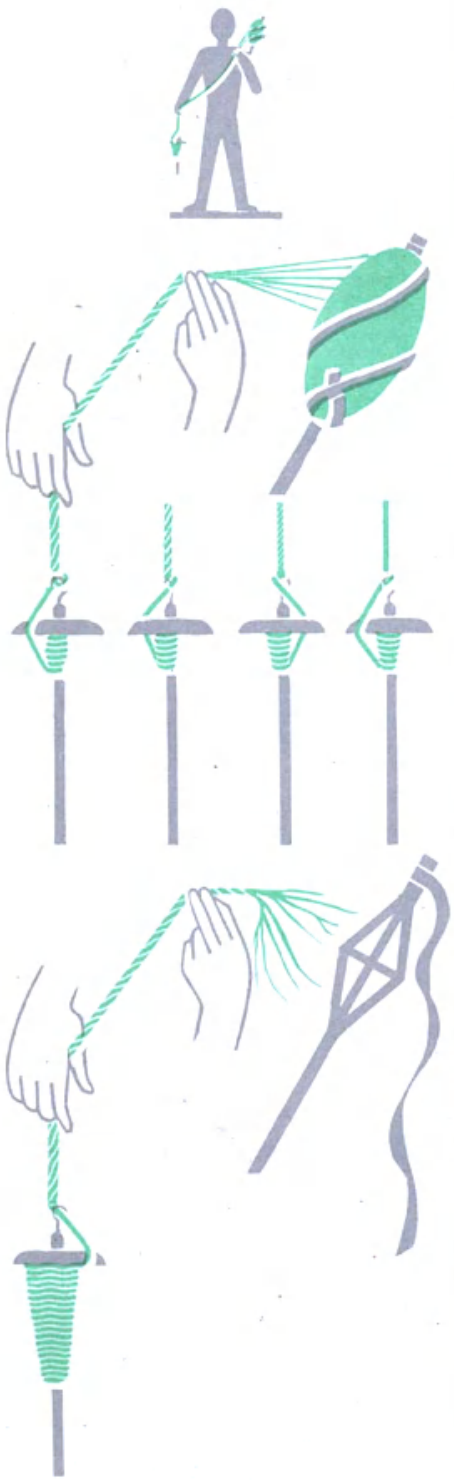
6
Which of the four kinds of clothing shown cannot be made without a factory?

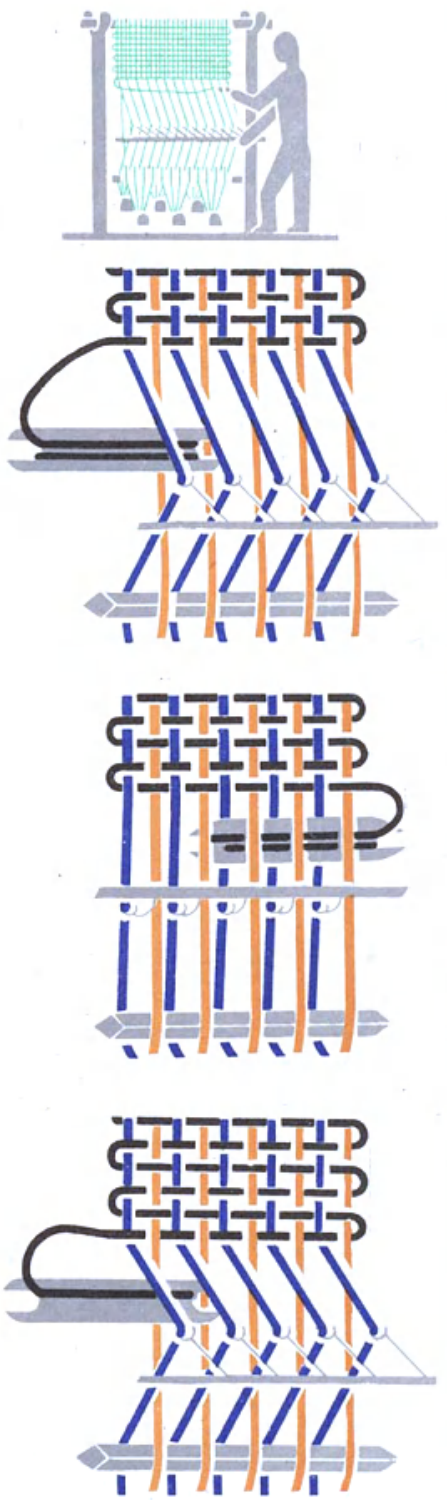
7
How can linen cloth be made, starting from flax?

8
How are silk threads made, starting from leaves?

9
What do people gain by spinning single threads into thicker threads?







10
The four bobbins in the left-hand column stand for steps in the spinning. What happens to the threads as the spinning goes on?

11
How is the twist put into the thread?

12
When twisted together most fibres stick together. How is this useful?

13
Explain how a strong thread can be made from fibres.

14
Where do you see a shuttle? A weaving frame?

15
Look carefully at the way the shuttle travels from left to right and then right to left. Does it always go under the same threads?

16
Why does the man in the top right picture sometimes pull the stick towards him, then let it go again?

17
Explain how cloth can be woven from threads.

Chart 18

Seasons on the Nile and in Britain

1
How long a period of time does each picture on the left stand for?

2
For how many months in a year is the Nile in flood?

3
When the Nile flows over, why does not the water pour all over the desert?

4
When the land dries again, good soil is left by the water. How is this good soil shown in the pictures?

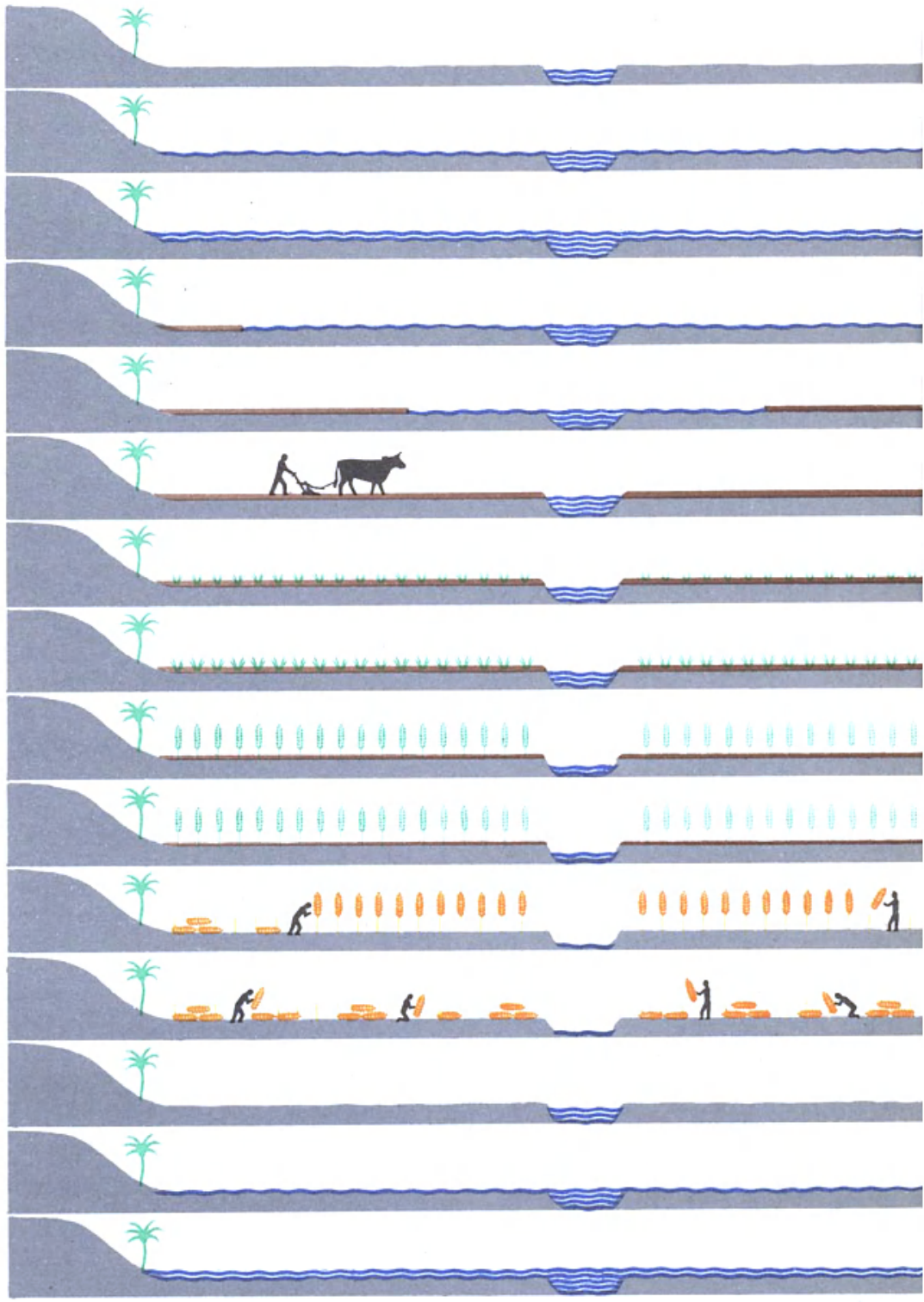
5
How did the Egyptians dig this soil?

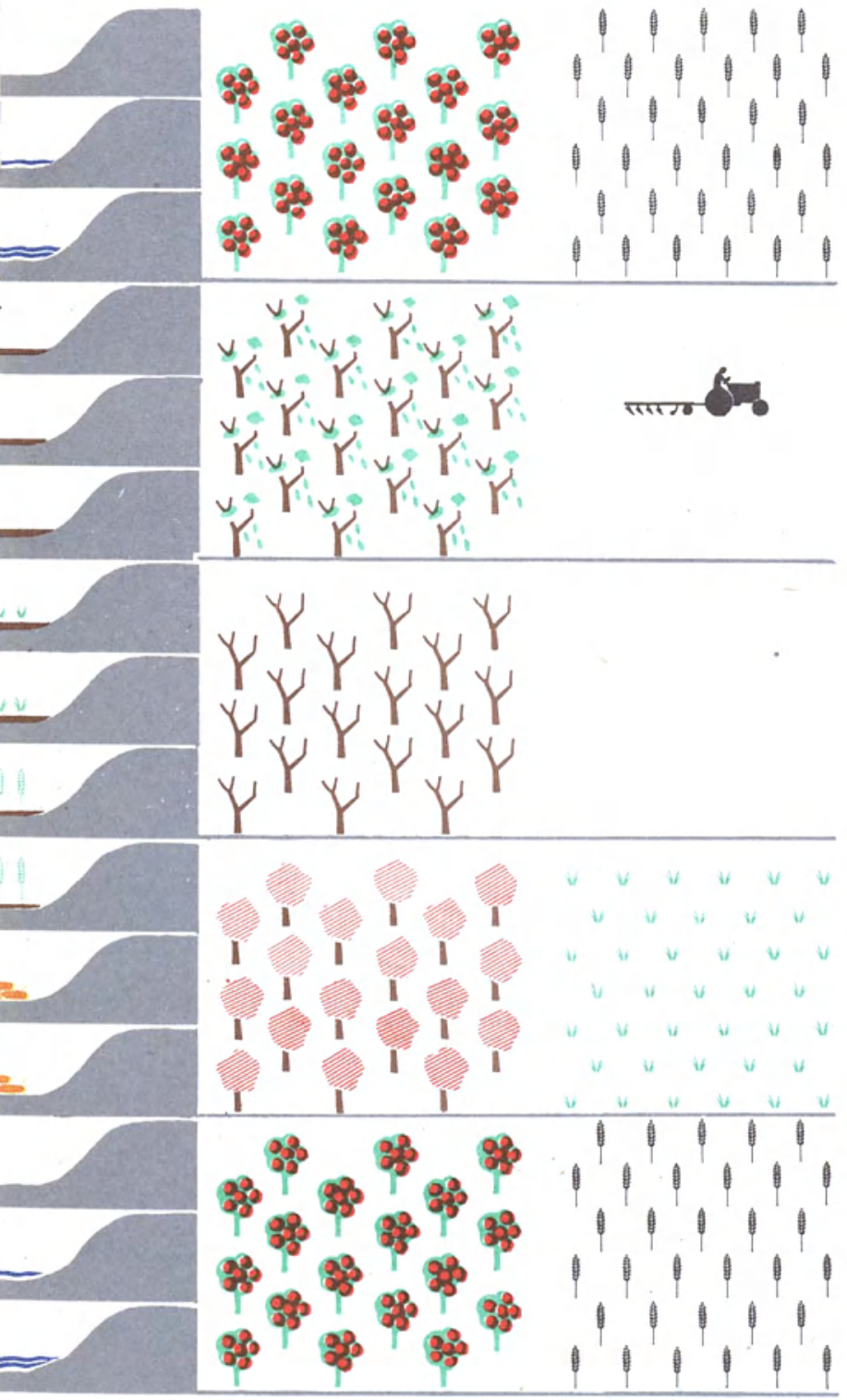
6
How long do the crops take to grow?

7
During which months of the year do Egyptians gather their crops?

8
During which British seasons do crops grow in Egypt?

9
Would it be possible for the crops to fail in Egypt? Why?





10
Explain why the Egyptians can grow crops although it hardly ever rains in Egypt.

11
Why are floods welcomed in Egypt, but disliked in England?

12
How is it that Egyptian farmers can get on quite well with very little manure?

13
How many seasons are there in England? What are they called?

14
What are the chief differences between the seasons in our country?

15
What are the chief differences between the seasons in Egypt?

16
Tell about the sort of work which farmers in Egypt and farmers in our country have to do. How far is the work the same in both countries?

Chart 19

Living by the Nile in Early Times

1
What is the name of the river shown on the map, and of the seas?

2
Where do people get water from in an oasis?

3
On the map how is an oasis shown?

4
Where does the water in Egypt come from?

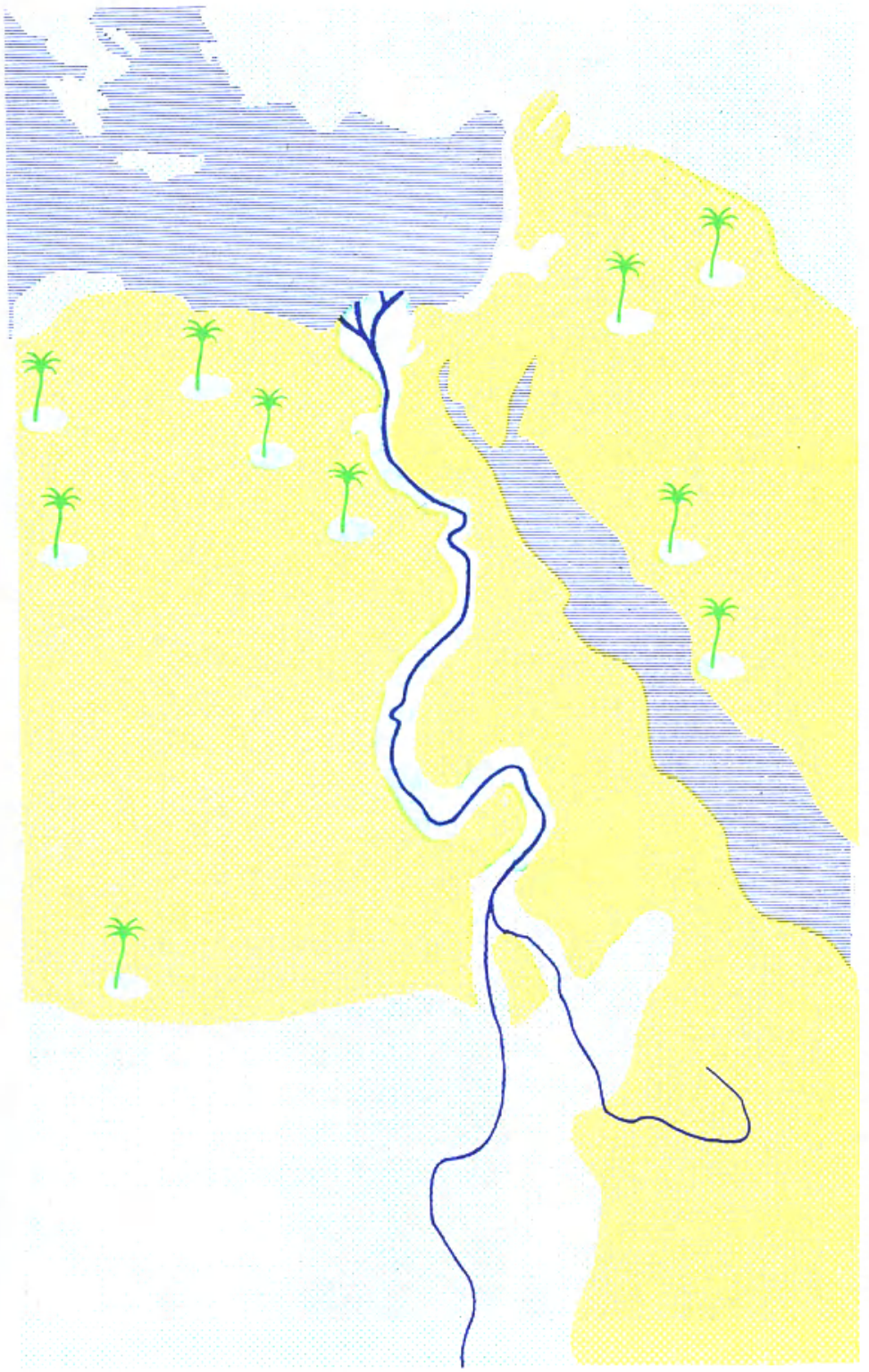
5
In what parts of Egypt do crops grow?

6
In what parts of Egypt would people settle to live?

7
In what parts could the Egyptians build temples or pyramids?

8
In what parts of the country do the floods start?

9
What are the names of the big monuments shown in the first picture? What were they used for?



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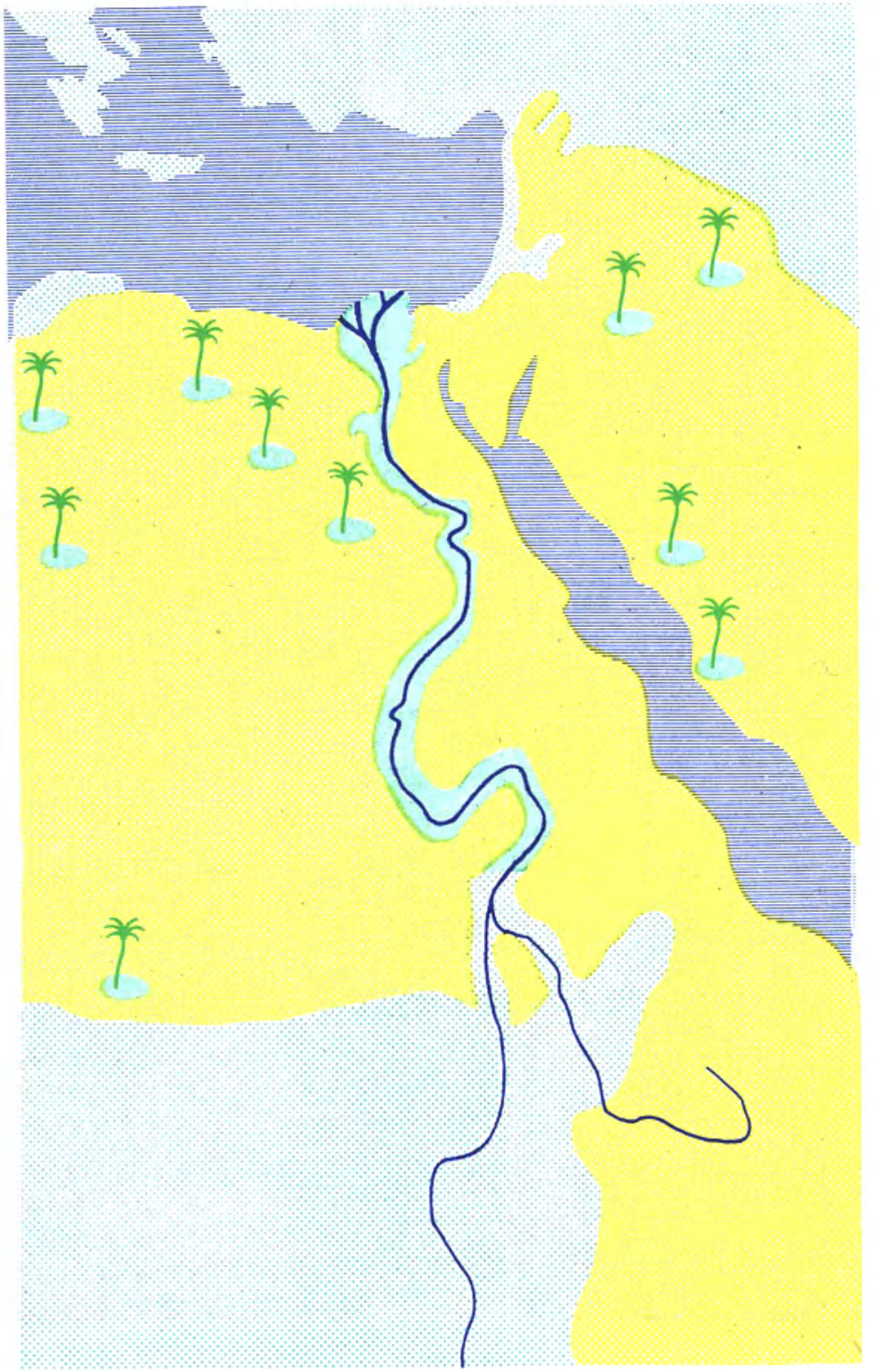


Digging down into History

1
What is the big building, with a fire in front of it, in the first picture?

2
In what charts have you seen fire burning on or before altars?

3
What is the grey cloud in the second picture made of?

4
Why is there a grey layer on the buildings in the second picture?

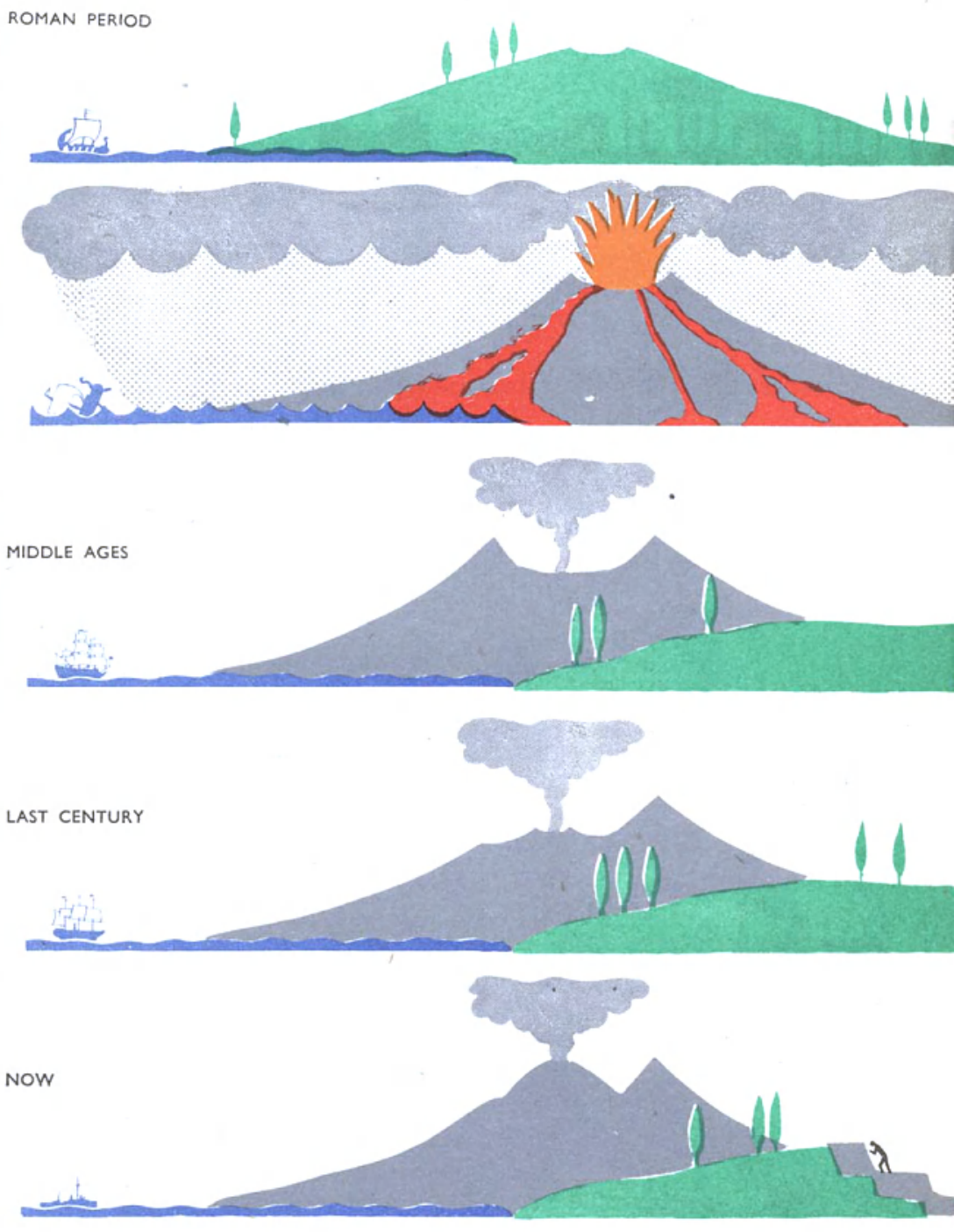
5
What is the name of the red stuff in the second picture?

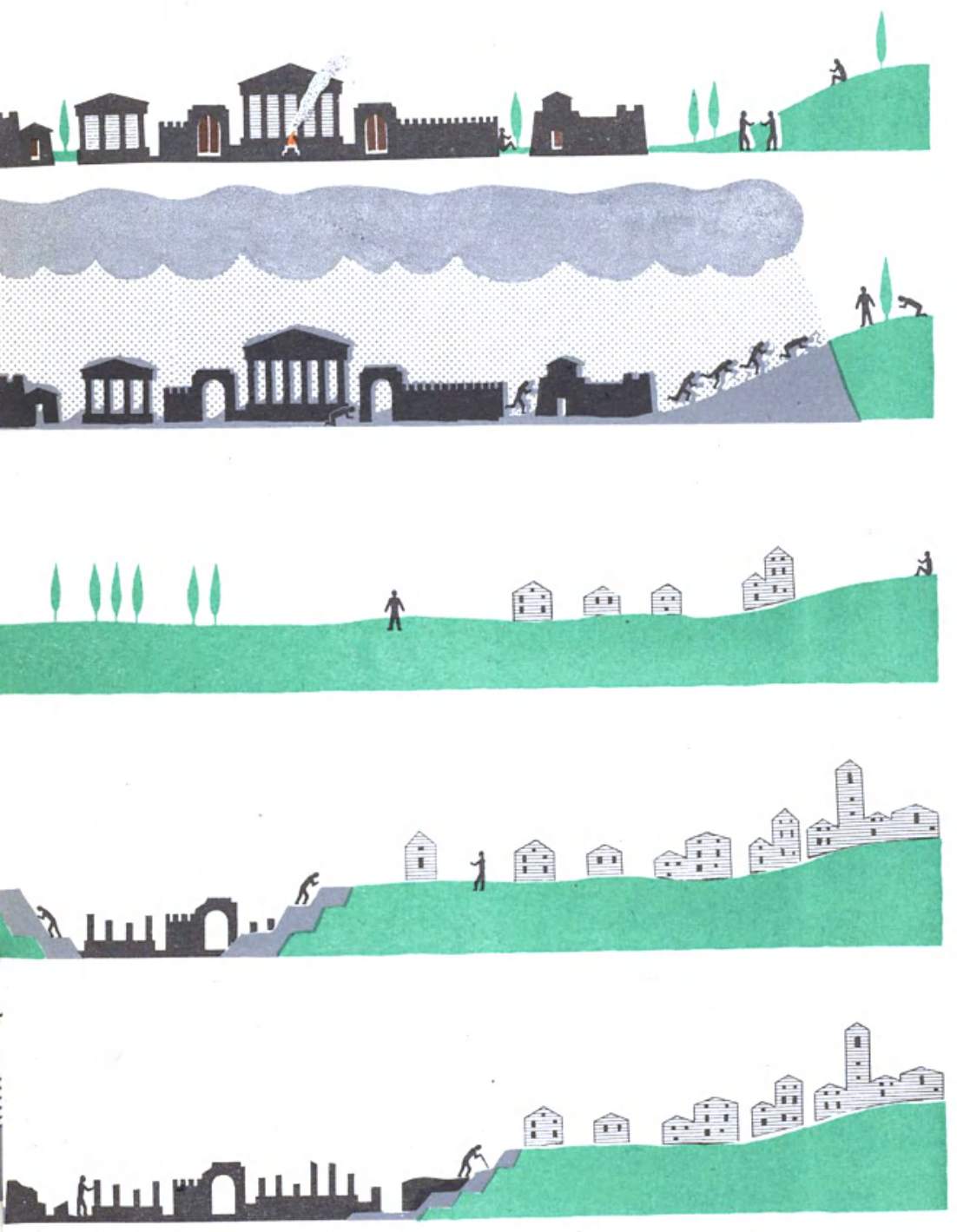
6
In what other chart have you seen a volcano?

7
Why are waves shown in the sea in the second picture?

8
Tell the story of what happened in the second picture.

9
How can you tell that many years passed between the third and fourth pictures?





10
Say what happened between the second and third pictures.

11
What is happening in the fourth and fifth pictures? What made them think of digging just there?

12
What sort of material will those who dig here first have to remove?

13
What sort of Roman remains will the diggers be likely to find? What materials would they be made of?

14
Would the diggers be likely to find cloth or food or wine?

15
Why is the shape of the volcano shown differently each time? What happens?

16
Say how, by digging, people can sometimes find out what happened long ago.

Chart 21

THINGS TO DO YOURSELF

1. You have seen how stories can be told in pictures. Try to tell some yourself. You can copy the symbols used in this book and you may like, in some cases, to use coloured paper or paints. Use these symbols to tell the following stories:

a. How early men got wheat and made it ready for eating. Do not forget the pounding of the grain and the cooking of the flour.

b. How early men hunted an animal and got it ready for eating. Do not forget the getting of fire.

c. Catching a parrot or other bird and putting it in a cage.

d. The work on a modern farm, including the milking of cows and the keeping of hens.

You will think of other stories which could be told in the same way.

2. Try to invent symbols of your own and use them to tell stories. For instance, make up two charts from which you could compare the way children live now with the way they lived in the days of cave men.

3. Many of the charts in this book will give you ideas for making models. Such models can often be constructed easily with glue, cardboard, and coloured paper. Begin by building a model of a lake village or of an early farm. If you can bring in a story, so much the better.

4. In some charts, things are being done by human beings. You may feel like trying some yourself. For instance, you could easily make a simple lathe like the one shown in Chart 7, and you could bore a hole with it. But, often, if you try to do things which early men had to do you'll find great difficulties in your way. If you try to make fire as in Chart 8, or if you try to cut down even a small bush with a sharp flint your admiration for early men is likely to grow but you are not very likely to succeed.

SOME BOOKS TO READ

The list below gives the titles of a few books dealing in greater detail with topics included in this Visual History. Some of these books are difficult to read, but they contain interesting pictures. The easier ones are marked *. Most of them will be found in any Public Library, and possibly in its Children's Section. It is certainly worth while looking inside the *Children's Encyclopaedia*, *Harmsworth's History of the World*, and *Newnes' Pictorial Knowledge*. Handbooks issued by Museums like the Horniman Museum are also worth consulting.

*AULT, NORMAN. Life in Ancient Britain *Longmans Green* 4/–

*BOYLE, MARY E. In Search of Our Ancestors *Harrap* 7/6

CHILDE, V. G. What Happened in History *Penguin* 1/–

CHILDE, V. G. Man Makes Himself *Watts* 2/6

CHILDE, V. G. The Dawn of European Civilisation *Kegan Paul* 20/–

DAVIDSON, D. Men of the Dawn *Watts* 2/–

*DITMARS, R. L. The Book of Prehistoric Animals *Harrap* 5/–

FORDE, C. DARRYL. Ancient Mariners *Howe* 2/6

GLANVILLE, S. R. K. Daily Life in Ancient Egypt *Routledge* 6d.

GOODWIN, ASTLEY J. H. Communication Has Been Established *Methuen* 10/6

HARRISON, G. B. Digging for History *Nelson* 3/6

HAWKES, CHARLES F. C. The Foundations of Prehistoric Europe *Methuen* 16/–

HAWKES, JACQUETTA AND CHRISTOPHER. Prehistoric Britain *Penguin* 1/–

HAWKS, ELLISON. The Triumph of Man in Science and Invention *Nelson* 7/6

HOLMES, GEORGE C. V. Ancient and Modern Ships *Chapman & Hall*

HOUGH, WALTER. Fire as an Agent in Human Culture *U.S. Gov. Printing Office, Washington*

*ILIN, M. Turning Night into Day: the Story of Lighting *Routledge* 4/–

*ILIN, M., AND E. SEGAL. How Man Became a Giant *Routledge* 7/6

*LOON, HENDRIK VAN. Ancient Man: the Beginning of Civilization *Harrap* 3/6

MACCURDY, GEORGE GRANT. The Coming of Man: Pre-Man and Prehistoric Man *Chapman & Hall* 4/6

PEAKE, HAROLD. Early Steps in Human Progress *Sampson Low* 3/6

PEAKE, HAROLD. The Origins of Agriculture *Benn* 6d.

*PETERSHAM, MAUD AND MISKA. The Story Book of Wheels *Dent* 2/6

PIGGOTT, STUART. The Progress of Early Man *Black* 3/6

*QUENNELL, MARJORIE, AND C. H. B. Everyday Life in the Old Stone Age *Batsford* 7/6

*QUENNELL, MARJORIE, AND C. H. B. Everyday Life in the New Stone, Bronze and Early Iron Ages *Batsford* 7/6

WOOLLEY, SIR C. L. Digging up the Past *Penguin* 1/–

WOOLLEY, SIR C. L. Ur of the Chaldees *Penguin* 1/–

A NEW DEVELOPMENT IN VISUAL EDUCATION

The Scottish Report on Primary Education (1946) says of visual education: "It depends not so much on direct photography as on the animated cartoon, and sets out with the purpose of teaching a definite lesson: not background illustration but essential education. It studies the psychological approach, makes use of all possible devices of sight and sound to arouse and maintain interest, and ruthlessly excludes every irrelevant detail. The skill of the most inspiring and imaginative teachers can thus be allied to all the devices of the modern technicians to produce a teaching medium of extraordinary power that may be made available in every class-room in the land."

The *Visual History of Mankind* is an attempt to translate these words, written of the film, into the printed book. The picture language, Isotype, was designed by its originators for this educational purpose. Clarity and simplicity is its chief aim. All irrelevant detail is omitted, the same symbols occur over and over again so that the reader quickly recognizes them, colour creates interest but is used always with meaning and not merely as decoration, attention is paid to arrangements which will present easily remembered patterns. This new instrument is used to make statements and tell stories which are not simply of background value but are themselves an essential part of the education of modern citizens.

The books are intended for use at the stage, described in the Report, when the pupils are "in a position to realize the patience and genius of our early ancestors in making those inventions and discoveries upon which the later developments of civilized life are based . . . to follow with intelligence and interest the great stories of civilization, such as the story of the ship, the wheel, the road, the alphabet, lighting, weights and measures, law and order". Teachers will, of course, use the charts in the light of their own experience. Some will use them as texts, study them with their pupils, help them by questions to find the right words to describe what they see, and use the blackboard to summarize the lesson. Others will tell stories, illustrating them with film strips and other pictorial material as visual aids, and then turn to the books to drive home and expand what has been dealt with. Still others will continue to use the ordinary story books and use the charts as geography teachers use an atlas. But all of them will find in these books an opportunity to "study and experiment", in the words of the Report, "with a technique of teaching which seems likely to be of revolutionary importance".